DOCTORAL DISSERTATION

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Analyzing the factors expediting commercial value for companies in online social networks using Electronic Word-Of-Mouth

DOCTORAL DISSERTATION

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Declaration of Originality

I, the undersigned, solemnly declare that this diploma work is the result of my own independent research and was written solely by me using the literature and resources listed in the Bibliography.

Signature _____

Israel, May 2012

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Abstract

Online social networks and Facebook as the shining leader have become the most popular websites in 2009-2012. Facebook is the 4th most popular website in the US (ComScore, 2011) with more than 800 million active users and 50% growth in the 12 months prior to July 2011. In many aspects, social networks changed many aspects of our society, and many millions of people spend hours every day in these networks. As a result, social networks become a fascinating infrastructure for businesses that are willing to leverage this tremendous opportunity.

Looking at this new phenomenon from the users' perspective, as well as from the commercial perspective, might optimize the value both audiences get from the network.

Although 92% of marketers are using Facebook as a marketing tool (Marketing Charts, 2011), most of the current efforts have not yet yielded the desired ROI.

In this dissertation the researcher analyzed the main factors that expedite commercial word of mouth in the online social networks (preliminary Facebook) and figured out how companies can leverage the real potential commercial value of the network. In order to do that, the technology acceptance model (TAM) and the theory of reasoned action (TRA) were used, in the context of the social networks. In addition to that, the Hofstede's cultural dimensions were measured and their effect on the model variables was analyzed.

The research method included self-report 29-questions long electronic questionnaires that were answered by the 150 participants in the research that are all Israeli Facebook adult users. The questionnaire was distributed virally using Facebook and emails starting from the extended network of friends of the researcher.

In addition to the main research, the researcher conducted four preliminary researches in order to better understand some of the aspects of this research. The preliminary researches evaluated the real value of viral word of mouth information sharing in the social network, the characteristics of the Facebook users both within the network and in the real world, the strength of the friends group of a Facebook user and the attractiveness of monetary "deals" that are offered to users of the social networks.

Results of the main model shows that self-expressiveness seems to be the most influencing factor that affects the perceived usefulness, the attitude towards the social network and the information reading activity, and is highly correlated with both the perceived ease of use and the attitude towards the commercial information shared in the social network. Perceived ease of use is affecting the attitude towards the social network and is highly correlated with the self-expressiveness. Perceived usefulness is only affecting the information reading activity but it was close to be significant also in affecting the attitude towards the social network.

The attitude towards the social network was close to be significant in affecting the commercial information sharing intention. The attitude towards the shared commercial information affects both the commercial information sharing intention and the actual sharing activity. It is also correlated with the self-expressiveness factor. The commercial information sharing intention is affecting the actual sharing activity.

Out of the two measured activities, the information reading activity is affected by self-expressiveness and the perceived usefulness, and the commercial information sharing is affected by the attitude towards the shared commercial information and by the intention to share commercial information.

On the cultural dimensions analysis, both attitude towards the shared commercial information and the actual commercial information sharing were found to be

higher in feminine cultures. Perceived usefulness of the social network was found to be higher in collective cultures.

In addition to the model, Facebook was found to be by far the most popular social network today. There were high correlations that were found between the usage frequency, the time spent in the social network and the number of friends in the social network.

The relevance of the commercial information was found to be the most influencing factor in driving reading of commercial information. Product satisfaction was found to be the most influencing factor for sharing commercial information. Rewards were found to be the least influencing factor in both categories, but still among the different rewards people want in return for sharing commercial information, money, gifts and attractive deals were the most influencing rewards. Restaurants, films and books were the products/services users are the most willing to share commercial information about. In the preliminary research it was also found that restaurants and bars were found to be the vertical markets that attractive deals can be the most beneficial in.

Most of the social network users perceive the information they get in the social network as equal or as better than the information they get from people they trust in the real world.

Users see the direct contact with vendors and the possibility to get answers to their questions from the vendor, as the best value out of this contact. Still, traditional push marketing strategies, such as advertisement, are mainly ignored.

In the preliminary researches, the virality of word of mouth communication within the group of social network friends was demonstrated with 80 new members that were added to a restaurant page virally within a month. It was also found that the value of the social network interaction is optimal for people with medium levels of

social connections in the outer world. Women seem to use social networking more than men and they appreciate much more than men the quality of their network rather than its size.

The preliminary research also found that Facebook users perceive their friends group as a group and treat it as such, and the younger the users are the stronger this phenomenon is.

Using the social network word of mouth for commercial purposes seems to be the best approach for companies in order to promote their interests within the social networks. The conclusions of this research can shed some light on the main factors that can enhance this important activity.

Contents

Preface

The idea to research the online social networks was a result of a long process that started many years ago with the rise of the internet and the many different changes that it brought to our life. During the following years, it became apparent that the internet changed a lot in the theoretical background both in the business school of thought and in other areas.

The researcher started to look into the different angles that can be further explored within the marketing area in the internet, while another big phenomenon has started to raise, the online social networks. Although it started as just another web-based communication tool, the amazingly growing demand showed that this is going to be something that can also shake some of the existing best practices in the marketing world. Still, in the early days, there were people that were skeptical regarding the size and importance of the new phenomenon, but the researcher thought otherwise and decided to research this exciting area.

As a marketing executive in the industry during these years, the researcher was exposed to the first attempts to leverage the new promising landscape of the social network for commercial benefits. These attempts were done using the traditional approaches companies were fluent in, such as: advertisement, direct mailing and others. These attempts were not only disappointing in the results and the return on the investment, but they actually created damage and frustration to both social network users and the companies. Looking at the less conventional marketing ways brought the researcher into the belief that there might be a way in generating commercial value to companies and in the same way have the users gain something out of that.

The first advanced attempts that were done in the first years, looked at the win-win interaction between companies and users in the social network as something that

has to be monetary-oriented, meaning that the only thing that can drive the social network users to assist companies, if anything, will directly money or specific financial benefits.

The researcher was very interested in this interaction, and with having relationship marketing, word of mouth, viral marketing and other innovative concepts in mind, was eager to look into the ways that are not financial related, but can still generate tremendous value for both users and companies.

During the following four years, the researcher analyzed the social networks and questioned hundreds of users, and together with its business experience tried to create some more knowledge that can benefit business executives in pursuing the online social network potential.

Chapter 1 – Introduction

1.1 Background for the research

Online social networks, like Facebook, Twitter, MySpace and others, have become the most popular websites in 2009-2012. Facebook, as the largest social networking site in the world, is the 4th most popular website in the US (ComScore, 2011). Facebook has more than 800 million active users and 50% growth in the 12 months before July 2011. If Facebook was a country, it would be the world's third largest country (based on the number of inhabitant), after China and India. Looking at the distribution of the Facebook users globally: 28% of the Facebook population is in Europe, 23% is in Asia, 22% is in North-America (USA and Canada), 18% is in Latin-America (Mexico, Central and South America) and 5% is in Africa (InternetWorldStats, 2012). The USA is the far-biggest country in terms of Facebook population with almost 20% of the Facebook users. After the USA, the next biggest countries are: Indonesia, India, Brazil and Mexico with 4%-5% of the population each. While in the USA Facebook has more than 50% penetration among the US citizens, the next biggest countries has a much stronger growth potential with 3.5% penetration in India, around 17% in Indonesia and Brazil and 27% in Mexico (SocialBakers, 2012).

Facebook is a very active network with more than 375 million users entering the network at least once a day (Facebook Statistics, 2011). Although Facebook is considered to be a tool for young people, 38% of its users are above 35 years old (InsideFacebook, 2011). The average user in Facebook has 130 friends and he spends 31 minutes and creates 3 pieces of content on a daily basis in Facebook. More than 30 billion items of content (photos, messages, etc.) are uploaded each month to Facebook (Facebook Statistics, 2011).

The majority of the consumers' community, for most companies, is now accessible in Facebook. With the latest technological developments, Facebook is now accessible via smart-phones, has open interface to other sites and applications (Facebook-Connect) and is supported by monetary applications (Facebook Payments and others).

The popularity of Facebook and its recent enhancements have created a very attractive commercial infrastructure. In a recent survey done by SocialMedia with 3,342 participants that answered an online survey published on Twitter, Facebook and LinkedIn as well as sent by email (Marketing Charts, 2011), an overwhelming majority (92%) of marketers said that they are now using Facebook as a marketing tool, following by other social media tools such as Twitter (84%), LinkedIn (71%) and blogs (68%). About half of the marketers using Facebook, started to do it in the last year, and most of the Facebook marketers would like to know more about its capabilities.

Companies in all sizes are attracted to the social media. Still there is a difference between companies with large marketing budgets that are using the social media in combination with traditional marketing tools (such as advertisement, public relations and sales promotion tools), and companies with smaller marketing budgets that are using the social media as their primary marketing tool.

Effective marketing within a social network for both big and smaller companies is a very challenging task. Most of the current efforts have not yet yielded the desired ROI for the majority of the companies. These efforts are done by using traditional marketing approaches such as advertisement and mass marketing (sending messages within the network), an approach that is disregarding the main asset of the social network. This asset is the fact that people are "connected" with other people they know (at least to a certain degree) and can transfer information

to one another, information that will probably be regarded as less intrusive and more credible than "vendor-polluted" messages.

In addition to that, most social networks provide an opportunity for companies and brands to maintain a "social network" entity. This entity can help the company keep ongoing "social" relationships with the social network users. Marketing in the network should leverage these capabilities in order to maintain a much more conversational, bi-directional or even multidirectional communication between the companies and the network members. Building these social connections might change the marketing approach to be one that is based on building relationships, rapport and trust between the company and the consumers and as a result creates a much more transparent relationships (from both the company and potential/existing customers perspectives).

These trust-based relationships can not only improve the attitude towards the company or brand but can probably also influence the willingness of the social networkers to use the network more often and share more information (Goldsmith, Bridges and Freiden, 2001).

From the other end, although the concept of relationship marketing and the development of long-term relationships with loyal customers have been very popular in the last two decades, the need for reaching out to other prospective customers that might not be within the network of the company's loyal customer base is also very important, and might yield to better financial results (Werner and Kumar, 2000).

Looking at it from a more general marketing-mix point of view, one of the main reasons traditional marketing and advertisement approaches are becoming less effective in recent years (inside and outside the social networks) is the loss of consumers trust in what companies are saying (Calfee and Ringold, 1994). This lack of trust is an ongoing effect of deceptive advertising consumers are exposed

to and is influencing their level of trust towards advertisement in general (Darke and Ritchie, 2008)

In order to develop a better approach for both companies and the Facebook users, this research analyzed the routes of getting into consumers' conversations in a way that will benefit both sides. Getting into these conversations is very important today in order to get into the consumers' consideration set, because of the shrinking effect of traditional advertisement.

Looking at it from a different perspective, most of the Facebook users (and the other social networks) are connecting to others in order to share ideas, thoughts and content (mainly photos and music). Making this sharing process, the Electronic Word-of-mouth (electronic word of mouth), valuable for commercial use, is the heart of this dissertation. Word of Mouth (both traditional and electronic) is very critical in the decision making of consumers. According to AC Nielsen (2007), "consumer recommendations are the most credible form of advertising among 78% of the study's respondents". In another survey that was done by the Kelsey Group (The Kelsey Group, 2007) "review users noted that reviews generated by fellow consumers had a greater influence than those generated by professionals". In a comparison done between word-of-mouth within online social networks and the traditional marketing approach, referrals done by word-of-mouth were far more effective than activities using traditional marketing activities (Trusov, Bucklin and Pauwels, 2009).

To that there is a need to add the issue of influencers that is becoming much wider in an online social network. It's no longer just the "expert" that can influence the consumers, but it's also other influencers such as the best networker (with a large social network), the most attractive blogger and others.

In this dissertation the researcher analyzed the main factors that expedite commercial word of mouth in the online social networks (preliminary Facebook)

and figured out how companies can leverage the real potential commercial value of the network. Although word of mouth is more critical for service companies, compared with product companies (Friedman and Smith, 1993), this research was not focused only on services companies. The researcher analyzed the online networkers' desires and needs in order to realize what it is that they want in return for sharing commercial information with their peers.

In order to analyze the main factors for commercial word of mouth in the social network, the technology acceptance model (TAM) and the theory of reasoned action (TRA) were used, in the context of the social networks. In addition to that, since the social networks are mainly global, the Hofstede's cultural dimensions were measured in order to evaluate the cultural effect on the model variables. In addition to that the researcher conducted four preliminary researches in order to better understand some of the aspects of this research. These researches held various focuses relevant to the researcher in a given time and in a given context. As a summary a final research was conducted which focused on the most relevant and interesting subjects crystallized as a result of the previous research projects. The first preliminary research described in chapter 3.1 was a real-life experiment done in order to evaluate the real value of viral word of mouth information sharing in the social network. The second preliminary research described in chapter 3.2 was done in order to understand the characteristics of the Facebook user both within the network, and in the real world. This dual-life phenomenon is specifically important for commercial entities that also appear both in the real world and in the social network. The third preliminary research described in chapter 3.3 was done in order to evaluate whether the friends group of a Facebook user is really a group in his perception. The answer to this question is critical before examining the factors that make the user share information with his group of friends. If this group is not really a group, the whole sharing process might fall

apart. The forth preliminary research described in chapter 3.4 was done in order to evaluate the attractiveness of monetary “deals” that are offered to users of the social networks. This research was done since there is a belief that all the social network users want to get out of the commercial entities within the social networks is only monetary rewards.

The results of the four preliminary researches together with the main model of this research and the other information analyzed as a part of the main research were provided some additional insights into the fascinating world of social networks and some really useful aspects for companies using Facebook as a marketing platform.

Chapter 2 – Literature Review

2.1 Introduction - The history of Facebook and the competitors

Facebook was founded in February 2004 as a social network for Harvard students, opened to the public in 2006 and is today the biggest online social network in the world by far. In the first years the growth in unique visitors was mild, but since 2009 Facebook started to grow aggressively. One of Facebook's main differentiators are the 52,000 applications currently available that are developed by a community of more than 660,000 developers and entrepreneurs from more than 180 countries (Facebook Statistics, 2009). Facebook's biggest competitors are still very far away. YouTube is the biggest competitor, but it is not social network per-se. Twitter (1.48% market share) is the next biggest competitor. MySpace used to be Facebook's main competitor in its early days. It was founded in 2003 and launched in January 2004 but since June 2009 it lost its leadership and it now has less than 0.5% market share among all social networks (DreamGrow, 2012).

In addition to the biggest networks, there are hundreds of other networks, some of them are targeting specific segments, such as Linkedin that is a professional network (0.56% market share), and others that are targeting specific geographic regions, such as QZone and RenRen in China, Xing in Germany, V Kontakte in Russia, IwIw in Hungary, Orkut in Brazil and many others (Vincos, 2011). In addition to those, there are relatively new social network applications that are becoming trendy. Twitter, for instance, is a micro blog application that enables users to send and read other users' text-based updates that are limited to 140 characters, known as tweets (Wikipedia Twitter, 2011). Google+, the newest social network from Google, is still in its early days, with 0.41% market share (DreamGrow, 2012).

The business model of most social networks today is based on revenues generated by advertising, although some of the networks offer premium-based membership packages (Linkedin, for instance). Facebook launched back in 2007 another revenue generator called Facebook Gifts, which enables networker to exchange virtual gifts they're buying. Facebook was making around 30M$-40M$ a year from selling these gifts (InsideFacebook, 2009) but closed it on August 2010 (Facebook blog, 2011).

Facebook as a company is still a private company, similar to its biggest competitor, Twitter. Its other competitors: Google and Linkedin are public companies. Facebook has more than 3,000 employees and its revenues in 2011 are estimated to be $4.27 billion (Bloomberg, 2012). The company is planning an IPO with an estimated valuation of $75 billion to $100 billion (Bloomberg IPO, 2012).

There is limited academic research that has been done on the marketing and business aspects of the online social networks. Facebook and the other social networks became very popular only in the last couple of years, and the interest around them grew hand in hand with their popularity. The majority of the research that took place on Facebook (or the other online networks) was focused on the social aspects of this new and unique phenomenon.

Also, with the rapid development of the electronic social networks in the past few years, some of the research that exists, was done on "networks" that are different than Facebook (such as: company forums, blogs and messaging platforms) which makes the direct concluding into the Facebook world questionable.

2.2 The participants: individuals and companies (segmentations, usage habits and motivation)

In order to look into possible segmentation of social networkers, one needs to analyze the Social network users' characteristics and their participation habits within the online conversation. Although Facebook is a global tool and as a result represents a global social network, there are differences in usage between experienced-advanced networkers, usually from developed countries/areas, and beginners-basic networkers, usually from developing countries/areas (Talukder and Yeow, 2007).

Social Technographics (Bernoff and Li, 2010) is a methodology built for companies to profile and segments its customers and builds its social strategy based on this profile. The Social Technographics methodology categorizes social computing behaviors into a ladder with seven levels of participation, starting with "Inactives" that are doing nothing with social media, "Spectators" that read blogs, listen to podcasts and others, "Joiners" that participate in social networks, "Collectors" that use RSS feeds, vote for websites and others, "Critics" that post ratings and reviews on products, comments on others' blogs and others, "Conversationalists" that updates statuses on social networks and "Creators" that publish a blog, webpages and others. The seven levels are ordered from the less involved user to the most involved user, but a single customer can appear on several of the levels. For instance, in the USA, 73% of the population is in the "Spectators" level but only 24% are in the "Creators", but in the segment of people that are 55 years old and above 64% are in the "Spectators" level and only 12% are in the "Creators" level.

In Europe the picture is totally different, where 40% that are inactive (compared to 18% in the USA), 49% that are "Spectators" and only 14% that are "Creators". In

Japan, on the other end, 23% are inactive, 69% are “Spectators” and 34% are “Creators”.

There are other demographic parameters (such as gender, race, ethnicity and parental educational background) that are correlated with the level of participation in social networks (Hargittai, 2008) and as a result might influence the “needs” that each of these segments is trying to fill.

Although Facebook is considered to be a tool for young people, more than two-thirds (and growing) of its users are outside of college and the fastest growing demographic among its users is those 35 years old and older. This growth in the older segments is not surprising, as the penetration rates of Facebook in these segments were traditionally low. The average user has 130 friends and spends 35 minutes a day on Facebook. More than 20 million users update their statuses at least once each day and more than 250 million photos are uploaded to the site every day (Facebook Statistics, 2009; Facebook Statistics, 2011).

Looking at the statistics of the Facebook users in the USA shows a decline of 2% in the number of users within the last 3 months, but still there are more than 152 million Facebook users in the USA which represents 49.18% of the total population and 63.77% of the total number of Internet users. The largest age group in the UK Facebook users is currently 18-24 (24%), followed by the users in the age of 25-34 (24%) and the users in the age of 35-44 (17%). There are 45% male users and 55% female users in United States, compared to 73% and 27% in India. The top 5 brands in Facebook USA are: Starbucks (27.6 million users), McDonald's (14.4 million users), Xbox (14.3 million users), Walmart (11.2 million users) and NBA (11.1 million users) (Socialbakers USA, 2012).

Looking at the statistics of the Facebook users in the UK shows an increase of 1.5% in the number of users within the last 6 months, with a total number of more than 30 million Facebook users (the 7th biggest country in its Facebook

population). The number of users in the UK represents 48.51% of the total population and 58.79% of the total number of Internet users. The largest age group in the UK Facebook users is currently 25-34 (26%), followed by the users in the age of 18-24 (24%) and the users in the age of 35-44 (18%). The top 5 brands in Facebook UK are: Burberry (10.4 million users), Sony Ericsson (6.2 million users), Dove (4.9 million users), Skittles (3.5 million users) and Cadbury Creme Egg (2.1 million users) (Socialbakers UK, 2012).

The top ten Facebook brands worldwide are: Coca-Cola (38 million users), Starbucks (27.6 million users), Red Bull (26.1 million users), Oreo (24.4 million users), Converse All Star (21.8 million users), Converse (21.8 million users), Skittles (20 million users), PlayStation (19.1 million users), iTunes (18.9 million users), Pringles (17.2 million users) (Socialbakers Branks, 2012).

2.3 Analysis of the participants' motivation

The reasons that drove hundreds of millions of people to register to the social networks and are still driving the majority of them to access and interact with others on a daily basis is an important building block in understanding the social network consumer behavior.

Recent research shows that using the internet for social purposes (such as the online social networks) reduces people’s feeling of loneliness and depression. These loneliness feelings are amplified in today’s modern world with the extended use of people in technology on behalf of spending time in social relationships (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay and Scherlis, 1998), as well as helping people’s self-esteem and their perceived social support (Bessière, Kiesler, Kraut, and Boneva, 2008; Ellison, Steinfield and Lampe, 2007; Shaw and Gant, 2002).

A study from 2003 found that lonely people that use the Internet and e-mail intensively, in many cases define these tools as providing them emotional support from others. Online social behavior of lonely people was found to be usually consistent and they report satisfaction with their relationship with friends online. These people tend to use the Internet to regulate negative moods, although they report that their Internet usage interferes with daily functioning, consuming time they would like to invest in other things. As one can see, lonely people are ambivalent in their report regarding the usage of the Internet (Morahan-Martin and Schumacher, 2003).

This social phenomenon can be partly explained by the fact that many traditional social networks, such as friends from school, work group members, etc., have disappeared in recent decades due to the existence of the Internet. Many people prefer to spend their time online instead of interacting with their families and friends (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay and Scherlis, 1998). Lack of social contacts is a challenging phenomenon to mankind, which can lead, in extreme cases, even to psychopathologies such as schizophrenia (Thoits, 1983). People who lacked social connection or those with limited option to create social connections before the development of the virtual world, find themselves today in a situation where they might find substitute social ties.

Many studies focus on the characteristics associated with perceived isolation and loneliness of people. A study of senior people found that the factors significantly associated with social isolation are: marital status (widowed, divorced and singles feel more social isolation then married seniors), the type of social network (seniors with a social network that is relatively weak feel more social isolation then those with a more robust social network) and social status (seniors with low to medium social status feel more isolated then those with high social status). Loneliness has a positive correlation with the type of social network (people with a relatively poor

and weak social network feel more loneliness then those with a more robust social network), the nuclear family (widowed, divorced and single without children feel more lonely then those married or widowed/divorced with children) and health (those with health problems feel more lonely then those with good health) (Wengeral, Daviesa, Shahtahmasebia and Scotta, 1996).

Other studies found a positive correlation between men's loneliness and their social network size, density and degree of personal exposure to social networks (Berg and McQuinn, 1989). This study found a difference between men and women regarding the effect of the effecting variables on loneliness. For women a correlation was found only between personal exposure to social network and sense of loneliness, with no significant effect of social network size and density. According to these studies, loneliness is not only associated with social contact options (in terms of the objective environment) but also depends on the person himself and his willingness to open up and develop social relationships (personal exposure).

There is a difference between emotional loneliness which is the person's feeling of being alone in the world (even if surrounded by friends) and social loneliness which is the person's feeling of being isolated and not having good friends (which is based on actual facts), but there is a moderate connection between the two. Emotional loneliness has a strong negative tie with the presence of a strong romantic relationship/partner, while social loneliness has a strong negative tie with having a social network and its size (especially for young people) and strength of social network ties (for adults) (Green, Richardson, Lago and Schatten-Jones, 2001). Social networks usually emphasize network size and not quality of relationships. Many people see their goal as “being connected” to as many "friends" as possible on these social networks. The average number of friends for a

Facebook user is 130, while the average number of "real" friends is around 10-15 (people that the person would define as friends outside of the social network).

Face-to-face social networks reduce feelings of social and emotional loneliness, so the stronger the person's face-to-face social network is the less he feels social and emotional loneliness. But when considering members of virtual social networks, higher levels of emotional loneliness are found in general. This means that although the Internet is a rather effective medium of communication, it often causes a reduction of social welfare and causes its frequent users, even those using it in social situations, feelings of social isolation (Moody, 2001). This conflict raises interesting questions regarding the Internet and social networks. The presence of these new "worlds" creates a new arena for social action that was expected to develop and enrich social relations, yet there is a sense of "loneliness" reported among users of this new media.

Facebook specifically was found to benefit people with low self-esteem and low life satisfaction, but moreover is creating and maintaining social capital for the larger population (Ellison, Steinfield and Lampe, 2007). This sociologic phenomenon can be partly explained by the fact that many traditional social networks disappeared over the last few decades as a result of the existence of the internet since people prefers to spend time online instead of interacting with their families and friends. This phenomenon is stronger for young people but exist in the older ages, as well (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay and Scherlis, 1998). According to Couldry and Curran (2003, p.279) some of the traditional physical social networks (such as meeting with friends in the food market) got “replaced” by online appearances of these networks.

Despite the fact that we might look at different sets of needs within the social networks, there seem to be one main desire and this is that people would like to feel a part of a group and have social interactions with individuals within the

group. These interactions are huge in volume. There are more than 1 billion pieces of content (mainly web links, news stories, blog posts, notes and photos) that are shared each week in Facebook (Facebook statistics, 2009).

The motivations of companies within social networks are different than the social networkers, from obvious reasons. In a recent survey of 3,300 marketers (Stelzner, 2011), the main benefits marketers indicated as the ones that are driving them to use social networks were: exposure (88%), traffic/subscribers to the website (72%), improved search ranking (62%), new business partnerships (56%), generation of qualified leads (51%), marketing expense reduction (49%) and increased sales (43%).

The parts of the conversation that has commercial implications and can create, if done correctly, the benefits mentioned above are:

- The "conversation" between consumers and companies/brands
- The "conversation" between consumers about companies/brands

Despite what one can think, there seem to be a mutual interest in having conversations between the companies and the consumers. This interest is a way of transferring information and reducing the risk/cost of future business transactions. In the end of the day, brand-related information can also be entertaining.

2.4 Electronic Word of Mouth

Word of mouth recommendation is an informal communication that is transferred to other people about a purchase or an ownership of a product or service, about the specific characteristics of these or about the seller that sold them (Westbrook, 1987). There are different forms of electronic word of mouth, such as: web-based opinion platforms, discussion forums, news groups, boycott websites and others

(Hennig-Thurau, Gwinner, Walsh and Dwayne, 2004). Facebook, and the other online social networks, provide a single platform that supports this type of communication, as well.

Word of mouth was always a critical factor in success of products, specifically in the diffusion stage of new products (Czepiel, 1974). This is a result of the fact that positive word of mouth recommendations are critical in the buying process of many customers purchasing products or services (Giese and Spangenberg, 1997).

From the other end, negative word of mouth (or complaints) can be spread virally very quickly over the net. These are very harmful for any product and service but can harm especially known brands (Barlow and Stewart, 2004).

Word of mouth is not something new, and it's been discovered that the participation and drivers of the traditional word of mouth (in pre-internet world) were replicated in the electronic word of mouth (Hennig-Thurau, Gwinner, Walsh and Dwayne, 2004). The word of mouth is even much more critical for services companies, compared to product companies (Friedman and Smith, 1993) which might be a result of the non-tangibility of services that is making the reported experience very important.

Word of mouth in social networks is becoming more and more important for companies in development of relationships of both private and business significance. Buttle (1998) was probably the first who argued that word of mouth could be mediated by electronic means.

Word of mouth had been overshadowed and underestimated for long decades before the Internet era experiences a kind of revival. This revival started when the Internet marketing experts discovered persuasive power of word-of-mouth in online environment. As it is explained by Litvin et al (2008, p. 459) "the key defining characteristic of WOM is the perceived independence of the source of the

message. This definitional evolution indicates, with information technology today ubiquitous, that WOM is becoming both more pervasive and amorphous. … WOM is the communication between consumers about a product, service, or a company in which the sources are considered independent of commercial influence."

Word of mouth is far more effective than traditional marketing methods, and some even say that "positive word of mouth recommendations are a thousand times stronger than traditional marketing" (Silverman, 2001, p. 21).

The effectiveness of word of mouth, more than any marketing method, comes from the fact that people perceive their friends and family as much more unbiased than any other source, especially the vendors. As a result the word of mouth recommendations seem to be reliable and they reduce uncertainty and risk in the buying process. This safer buying environment enables consumers to increase their purchased volumes (Balter and Butman, 2005). Research that was done in order to analyze the higher reliability of word of mouth indicates that 90% of consumers believe what they hear from their friends and family, with regarding to commercial goods, as opposed to 14% that believe traditional advertisement (Rusticus, 2006).

Facebook as a social network is relatively a weak and static network (as a result of the weakness and the static nature of its relationships). The relationships between the "friends" are not very strong in average (in terms of the amount of information that they exchange or other "relationship strength" characteristics) and the network of a specific member is not changing much. In addition to that, Facebook is a "public" network, where information that can be treated as private is published around the network (Skinstad, 2008). The publicity that can scare people from sharing information, as well as the weakness of Facebook as a network of relationships, have probably an effect on the level and depth of the word of mouth that is spread there.

In general, social networkers have different electronic word of mouth habits and behavior as a result of their social network structure (can be classified by how strong their ties are, what their position in the network is or other classifications). For instance, electronic word of mouth participants will be more willing to share information in a dense network, compared to a sparse network (Dongyoung, 2009). Although 80% of the social network users have fewer than 100 friends (Women have on average 62 friends and men have on average 57 friends), 9% have more than 100 friends and less than 1% have more than 1,000 friends (Thaeler, 2008). In Facebook the average user has 130 friends (Facebook Statistics, 2011) but in Twitter the average number of followers is only 27 (Kagan, 2011).

The importance of electronic word of mouth, as a replication of the traditional word of mouth, is something that was researched in the last years, and was proven to be significantly positive related to consumers' attitude, trustworthiness and loyalty towards a firm, a brand and/or a product (Gruen, Osmonbekov and Czaplewski, 2006; Mathwick, 2006). From the other side, although online communities are an important part of eMarketing for companies (Armstrong and Hagel 1996; Young and Levine 2000), companies have almost no control over the conversation happening over the net. The conversation can involve any part of the marketing functions (e.g. product or price), and as a result it is more of a situational function rather than a basic one, meaning that it can combine various parts of the marketing mix, with no preliminary control (Kalyanam and McIntyre, 2002; Godes and Mayzlin, 2004).

Despite its complexities, companies are interested in participating in the electronic word of mouth conversation in order to be aware of the conversation topics, influence this conversation, provide information and knowledge to this conversation and also address negative electronic word of mouth that might hurt the company. Electronic word of mouth is a self-feeding process where positive

experience in “talking” with a company will increase the trust and loyalty of the participants, which will result in a higher willingness to “talk” with and about the company (Mathwick, 2006). Although trust is a key issue in social networks, it’s not as important in building new relationships in the online networks as it is in face to face relationships (Dwyer, Hiltz and Passerini, 2007).

The effectiveness of word of mouth differs according to the nature of the specific decision process, the positiveness of the message that is transferred and the timing in which an individual entered into the word of mouth conversation (Grewal, Cline and Davies, 2003). As a result, it is very challenging for the company to influence the word of mouth in a certain way, while it has limited control over this information exchange process.

In addition to that, there are other factors that assist in creating more interactive conversation and as a result better commercial interactions between companies and consumers, such as the personalization of the messages, its relevancy to the consumer and the company’s response time to consumers’ requests (Song and Zinkhan, 2008). Other research indicated that consumers would like to be entertained and feel confident in the online commercial environment in order to be more active (Goldsmith, Bridges and Freiden, 2001). It’s reasonable to assume that these factors will also have an influence on the willingness to share commercial information.

Most of the social interactions within the social network happen between the networkers, but firms have the ability to influence this conversation by doing four main things: observe, moderate, mediate and only sometimes participate (Godes et al., 2006).

Companies in the last few years are making the effort to participate or encourage word of mouth, as one of their marketing tools. Companies are providing valuable benefits to consumers that share their experience with other customers. One

example is an Israeli burger restaurants chain, called Black, which serves a free beer for anyone that will share a note on its wall, while in the restaurant (Black, 2011). Of course it is important that the vendor using word of mouth as a marketing tool will keep its service levels high enough, so that the word of mouth of the satisfied customers will be positive (Kirby and Marsden, 2006).

The need for electronic word of mouth is increasing in today's world, mainly as a result of higher demand for information (that is led by the increasing complexity of the products and services offered) and from the other end, higher supply of information (with all the different available forms of communication, such as emails, SMSs, mobile social networks and others).

Word of mouth and specifically positive word of mouth can really makes a difference in the launch of a new product. Negative word of mouth or no word of mouth can either delay the diffusion of the product or even lead into a failure in its launch (Czepiel, 1974; Valente, 1996).

In order to predict how positive the word of mouth for company is going to be, companies are using the Net Promoter Score (NPS) method that was developed by Reichheld (2003). In this method companies are surveying their customers on a regular basis, asking a single question: "would you be ready to recommend this product/service to your friends and relatives?" The NPS index is calculated on a scale of 0-100 points, with an average of 15 in the US. Companies with NPS indexes of 50 are considered stars (50% of their customers are willing to recommend them to their friends). Although there is a criticism regarding the NPS scale, since there is no certainty that those who say that they'll recommend, will really recommend, but still 80% of those that say that they'll probably recommend, are recommending (Reichheld, 2003).

The NPS method can also be used in order to point specific customers that plan to recommend the company's products, and might be valuable for investment, and

others that might distribute negative word of mouth, and might worth the efforts in convincing them otherwise.

2.5 Marketing tools used in social network

The majority of the "marketing" within the social networks today is invested in advertisement. Since the results of advertisement within the social network are very limited, the focus of this research is in the other marketing tools that are currently used in order to get better results.

One of the things that have started to be researched is the efficiency of monetary encouragement on commercial conversations (and specifically on references by people that used a product/service). The monetary benefits can be provided to either the recommender, the receiver of the recommendation or both, and it looks like the strength of the existing brand is influencing the most efficient compensation mix (Ryu and Feick, 2007). The addition of financial benefits (and benefits in general) into the social network conversation is tricky since it can make the whole conversation be less genuine (at least by perception). Providing too many incentives for encouraging product recommendations can weaken the credibility of the information sources (Leskovec, Adamic and Huberman, 2007).

Despite this possible backfire effect, some companies (Facebook Chase, 2009) already started to provide credit points that can be redeemed for presents. Facebook-Gifts is also a mechanism that has started to be used for providing "tokens of appreciation" between networkers or between companies and consumers. Despite its limited success with 30M$-40M$ revenues per year (InsideFacebook, 2009), Facebook decided to stop it on August 2010 (Facebook blog, 2011).

There are other creative ideas for increasing online consumers' confidence, ideas that have been used and researched in the last few years. One of these is the use of Avatars (graphical representation of the company's representative) for influencing the online surfers' behavior. Since a company is an entity that is difficult to "feel" or create relationships with, the use of a human-representation of the company has proven to increase the satisfaction, positive attitude and purchase intention of the online shoppers.

The type of avatar that made the most influence (attractive or expert) was found to be correlated with the consumer involvement level with the specific product (Holzwarth, Janiszewski, and Neumann, 2006). These findings are reasonable and are similar to traditional advertisement source decisions. The consumer involvement level is a factor that is probably influencing the amount and type of information that networkers will be willing to share or receive in the commercial electronic word of mouth.

Commercial participation in social network conversation also brings to the front the area of Relationship Marketing.

Relationship marketing that was developed in the last 15-20 years is a concept that talks about building relationships between companies and their customers. When it started but also today it has been seen as a paradigm change in the marketing concepts, such as the marketing mix, especially for services companies (Gronroos, 1994). The main changes introduced by relationships marketing (Gronroos, 1994) are:

1) Longer-term relationships versus single-transaction relationships
2) High-quality interactive communication versus one-way communication
3) Lower price sensitivity
4) Management of customer base instead of measuring market share

The concept of relationship marketing kept its popularity in the last few years mainly as a result of the changes in culture, the strengths of customer databases and the new focus on organizational structure (Nwakanma & Jackson, 2007).

The way the concept was understood and implemented is that companies need to keep long-term relationships with their customers, not necessarily relationships that both will benefit from. Still, these relationships are based on commitment and trust between the company and its customers (Morgan & Hunt, 1994).

The most popular implementation of the concept is a "loyalty program" that in many cases is not really keeping neither the customer nor the company loyal. In order to keep relationships between the company and its customers stable, company should invest in improving the quality and strength of the relationships, as these were found to be correlated to the company's business results from the customer. The same research found also that the effectiveness of Relationship Marketing raises when the relationships are critical for the customer (in service offerings and business markets, for instance) and when an individual from the company is representing the company in front of the customer (Palmatier, Dant, Grewal and Evans, 2006).

In order to build the level of trust and transparency that is needed for the consumers to feel comfortable with companies participating in what is considered a not commercial environment (such as Facebook), companies should invest in doing Relationship marketing right. Relationship marketing is an area that was discussed a lot but is not always implemented in a way that benefits both sides. This can also be related with the efficiency of Avatars that was discussed before.

Although it is not the focus of this research, relationship marketing is a much more important strategy in the business-to-business market, where companies keep long-term relationship with other companies. In this market as well, companies are still

struggling to figure out what they should "give away" to their customers in order to keep their loyalty (Oakley & Bush, 2012).

Another method that is relevant for transferring commercial information in social networks is viral marketing. In viral marketing, the company is creating an attractive content that is being published within the network from one member to another (like a virus). The positive effect of Viral marketing in social networks on the adoption of products (mainly new products) was proven in research that was done last decade (Rogers, 1995; Strang and Soule, 1998) but the exact "formula" of what kind of message should be transferred to which "entry point" within the network was still not found.

One of the aspects of viral marketing that was researched was a result of the fact that not all the members of the network have the same "value" for a company. Companies should analyze the optimal amount of marketing that should be invested in each of the members (Richardson and Domingos, 2002), since marketing has a cost and there is also a negative effect to transfer "too-much" of viral marketing through the network. Viral marketing was a big hope for companies that believed that it can be used in order to "manipulate" the consumers' market, but recently research shows that it's not that epidemic and that efficient as was previously presented, especially in promoting product sales (Leskovec, Adamic and Huberman, 2007). As a result, learning the real "needs" of the social networkers and provide more transparent and honest "conversations" is the best way.

In the last few years, the usage of mathematical network models was used in order to scientifically optimize the usage of the network in order to achieve the best results out of the viral message distribution within the network (Richardson and Domingos, 2002; Hidalgo, Castro and Rodriguez-Sickert, 2006; Haythornthwaite, 1996). These optimization models would minimize the amount of money that is

invested in order to transfer a certain viral message to an individual. In order to explore the return on this investment, one needs to also estimate the value of the fact that the individual got the viral message. This analysis is obviously very complicated and should take into account the influence the message has on an average networker, and the value of this networker for the company. The value of the networker should be explored by calculating the value of a new customer that might become a lifetime customer. Taking into account the relationship marketing concept, the social networks should encourage a long time relationships between the company and the vendor, hence the calculation of the value of a lifetime customer (Hoekstra and Huizingh, 1999).

One aspect of a company communication that should be looked at very carefully is the company culture. Potential consumers will be more positive into messages of brands and companies that they're aligned with in terms of the culture they're representing (Polegato and Bjerke, 2009). These findings are specifically challenging in global social networks such as Facebook, where members from all over the world, that has different cultural background, different set of values and different believes are connected to each another, as well as are connected to the companies group pages.

Additional traditional approach that is being used in the social networks is Guerilla marketing, a concept that involves creative and not predictable sets of marketing activities. This "tool" can generate an interest for smaller companies with low marketing budgets since it's usually pretty cheap (Dalgic and Leeuw, 1994). Using Guerilla marketing in social networks can generate one-time success but is against the fundamentals I've discussed before that involves persistent, honest and transparent approach of both the social networkers and the companies.

Although social marketing can be very beneficial, effective online marketing campaign should be a coordinated effort of different "marketing tools" (one of

them would be social marketing), both online and traditional (physical advertisement, for instance). Innovation and support from the company's management are both affecting the ability of companies to create an appealing online campaign (Wang and Fesenmaier, 2006). Still, the marketing activities in the Internet world have to be different than the traditional sales and marketing approaches in order to create an appealing offer for the customers (Schubert and Selz, 1999). Since the internet is such a virtual and non-personal medium, except one-to-one marketing, almost all the research is indicating the importance of trust as a main success factor to participation of people in the internet world (mainly for socializing or participating in commercial activities).

2.6 Measurement of online marketing activities in social network word of mouth

Doing marketing in Facebook (and in the other social networks) is a very trendy thing, but companies have to make sure that they can measure the effectiveness of the marketing investment they're doing in this "media". The marketing effectiveness should be measured against the goals of the marketing campaign/program, since these marketing efforts should, in the end of the day, generate better financial results for the company (Doyle, 2000). Defining the goals in campaigns like that, especially talking about long-term relationships-building is something that its marketing effectiveness measurement can be challenging (Gordon, McKeage and Fox, 1998). In order to build long-term relationships with the company's target audience, a company has to determine what kind of relationships its customers are willing to build. The Social Technographics methodology (Bernoff and Li, 2010) described in chapter 2.2 can help companies target the right audience with the right social media tools and achieve the best

results. Companies can also analyze their own customers, segment them based on this model, set their social media campaigns goals according to these seven levels and measure the success of its online marketing activities based on it.

Bughin, Doogan and Vetvik (2010) divided word of mouth into three categories: experiential, consequential and intentional. The experiential word of mouth, which accounted to most of word of mouth communication, results from the consumer's direct experience with a product or service. The consequential word of mouth is a result of traditional marketing campaigns and occurs when consumers pass marketing messages to others. Intentional word of mouth that is the less common of the three categories is word of mouth that is intentionally driven by a company, by creating a buzz using guerrilla marketing messages and alike. In order to measure the impact of these three types of word-of-mouth Bughin, Doogan and Vetvik (2010) defined a theoretical framework called the word-of-mouth equity, in which they suggest to measure the impact of word-of-mouth communication by multiplying the volume of the messages by their relative impact. The impact of a single message changes based on four parameters:

- The strength of the social network – closed and trusted networks have higher impact compared with Large/dispersed networks.
- The sender of the message – Influential sender has higher impact that can be driven by his knowledge, experience or type of relationships with the receiver of the message.
- Message content - Relevant key buying factors for the consumer will have higher impact on the receiver of the message
- Message source - Consumer's own experience with a product or service will have more impact compared to messages that are based on gossip, for instance

Although measuring the word-of-mouth communication volume, as well as its impact can be very complicated, this theoretical framework, even when done on a sample of the communication can be beneficial for marketing spending decisions.

2.7 Information and knowledge sharing as a social exchange

The idea that each act of giving is part of an exchange network was accepted by many researchers and theoreticians of the social studies field, whom started regarding each interpersonal interaction as social exchange (Blau, 1964; Emerson, 1976; Homans, 1961; Thibaut and Kelley, 1959).

The social exchange theory is based on traditional economic laws stating people act rationally in order to maximize their personal gains, meaning to achieve the max reward or gain at the lowest cost (Homans, 1961). A person with some options will weigh the expected gains of each option and decide on a way that gives him maximum gains (Emerson, 1987).

According to this theory, then, people are rational creatures that enter into interpersonal relationships with others in order to gain from the interaction (Blau, 1964). These gains can be concrete (money, food, other items etc.) or intangible (services, information, social acknowledgment, respect, social status etc.) (Homans, 1958). The net gain from an interaction equal the total gains minus the total costs. Interaction costs can be personal resources like time, energy, money and so on, the need to deal with bad behavior from the other person or even negative feelings that arise as a result of the interaction, like shame or stress (Homans, 1958; Homans, 1961). Since a person has limited resources, his whole interaction system is a "sum zero game", meaning that if one does one thing, he won't be able to do something else at the same time with the same resources

(Emerson, 1987). One can equate between different actions or interactions by the resources they require, just like equating different products by their price.

In order for the interaction to survive, both sides need to gain from it according to each one's expectations. These expectations are based on previous experience in the same interaction or with similar interactions, regarding the assessment of the gains other people receive in similar relationships (Blau, 1964; Homans, 1961; Thibaut and Kelley, 1959), or by rationally comparing his gains and the other's gains from the interaction ("Do I gain less than the other side from this relationship") (Ekeh, 1974; Emerson, 1987). When one of the sides stops gaining value from an interaction (or thinks he stopped gaining value from it) he will try to change it or get out of it and it is very likely that the interaction will change or seize to exist (Homans, 1961).

How does social exchange work? When two people or more meet, each of them behaves in a certain way. This behavior is affected by the other's behavior and he actually reacts to it (Blau, 1964; Coser and Rosenberg, 1964; Thibaut and Kelley, 1959). The behavior of each one can be reinforcing (hence, having positive results) for the other side or costly (hence, having negative results and a high cost) for the other side. This means that in a social exchange system each party gets rewards from the other party while having costs and rewarding the other side. The social exchange theory claims that each side will choose how to behave within an interaction according to the other side's behavior (Homans, 1958; Thibaut and Kelley, 1959) with a goal of receiving maximum rewards from both side behaviors with minimum cost for him (Thibaut and Kelley, 1959). Homans (1961) believes that the secret of social exchange is "giving" the other side highly rewarding behavior for him with low costs for me and receiving "in return" highly rewarding behavior for me with low costs for him. In this situation both sides will gain maximum profits and the interaction will exist over time.

In general, a person is rewarded when his behavior is accepted and appreciated by those he interacts with. In this way obeying certain group norms will lead to some reward (assuming he is part of the group or wants to be a part of it). Not obeying the norm will bring negative results (high costs) like: punishment, boycott and so on. The more a person wants a certain reward the more willing he will be to change his behavior in order to get it. Also, the more rewards a behavior brings with it the more willing the person will be to engage in it again in the future (Homans, 1961). But studies have found that when a certain reward is given repeatedly its value drops and the person receiving it needs it less and will be less willing to engage in the rewarding behavior again (Homans, 1961) and will be inclined to change his behavior (Thibaut and Kelley, 1959).

As we saw earlier, rewards in a social system can be of different kinds. One of the most important rewards is social approval or social recognition. This reward functions similarly to money in the economic system and is called a comprehensive compensation (Homans, 1961): it can be received for a wide range of behaviors, it is itself a reward and it can be used to get more rewards. Gratitude is another important reward in the social exchange system (Simmel, 1950). Receiving social recognition and gratitude from many people, especially if it's public, leads to a climb in the social ladder and in the person's prestige and makes others appreciate him and respect him more.

Researchers of social exchange emphasize the importance of keeping interpersonal contacts and solidarity (Lawler, Thye and Yoon, 2000) and preventing hostility between the different sides. Levi-Strauss (1969) claims, for example, that the exchange of purring wine into each other’s glass helps both diners to overcome the embarrassment of sitting together and have a friendly meal.

When two sides are in an interaction, each has the opportunity to influence the other’s cost and reward or cost-benefit balance. This influence contributes to

power gains in the relationship, although usually the power isn't gained equally for both sides (Molm, 1987). The power gain does not have to be related to the level of satisfaction from the interaction. The power of one of the parties will rise according to his ability to affect the quality of the gains of the other party from the interaction or lower its costs. Also, a party's power will rise if the other party is dependent on him for its rewards and can't receive them from alternative interactions (Homans, 1961; Molm, 1987; Thibaut and Kelley, 1959). The dependence of one side is a function of the other's resources and the ease (or difficulty) of getting those resources from alternative sources (Yamagishi, 1987).

Thibaut and Kelley (1959) demonstrate this claim through an example: the expert (one with comprehensive knowledge) will always be the one holding the power in a relationship connected to his expertise. He can pass his knowledge to others and enable them to carry out rewarding assignments in a short time and with little effort and stress. Through this knowledge the experts gains power over those needing it. The problem is that knowledge as a source of power has a strange drawback – the expert loses its power once the other side can get the knowledge from another source or once he has enough knowledge to deal with other problems on his own. So, the expert has to use his source of power, his knowledge, thoughtfully so he won't hurt himself.

What does the expert get in return for his knowledge? According to Blau (1955) the expert gives his knowledge in the trade system and in return gets social recognition and he also has costs: sharing his knowledge with others takes time from his work. If the experts feels he is wasting too much time sharing knowledge and doesn't receive enough social recognition he will likely decide to stop sharing knowledge (leave the interaction) or just share less of his knowledge (change his behavior in the interaction).

Levi-Strauss (1969) differentiates between two types of social trade: restricted exchange and generalized exchange. Restricted exchange is direct and happens between two parties only. During this kind of exchange side A gives to side B and side B gives in return to side A and so on. Actually, restricted exchange divides the entire social system into pairs of players tide together in direct exchange relationships (Ekeh, 1974). The gathering of all these couples connects the entire social network indirectly, since if side A has an exchange interaction with side B and side B has one with side C this also connects side A and side C.

Generalized exchange is different since there is no direct return from the receiver to the giver but there is always another party in the interaction. Generalized exchange divides into two types: chain generalized exchange and network generalized exchange. Chain generalized exchange means that each player gives to a specific player and receives from a specific player (these are always the same players). For example: in a four player system A gives to B, B to C, C to D and D to A. Network generalized exchange sees all the players as one unit and has two patterns: individually focused and group focused. In individually focused trade all the players as a group give to each player individually, one after the other, until each one receives all he needs. In case of a four player group: A, B and C give to D. B, C and D give to A. A, C and D give to B and A, B and D give to C. Network generalized exchange means each players gives the whole group as one unit, for example: A gives to B, C and D together; B gives to A, C and D together and so on. In this case the return will be done by one player and will be accepted by the players as part of a group. The group exists as an entity of its own. The individual has obligations to the group and his rights are belonging to the group and having the group take care of him. The individual, in this case, can demand return from the group as a unit but not from another individual in the group (Ekeh, 1974).

It is important to note that generalized and restricted exchange systems exist side by side in the human society and contribute to keeping and strengthening the ties between people. Still, Gillmore (1987) and Levi-Strauss (1969) believe that generalized exchange creates a higher level of social solidarity then restricted exchange.

Social exchange, like giving, always brings with it some uncertainty (Bourdieu, 1977). Even though social norms and responsibilities exist, we can never be sure that the other party will give back in return. This uncertainty leaves area for the gift and without it exchange would be only economic.

In the generalized exchange systems, this uncertainty can cause problems. The responsibility to all the other players as a group enables some players to evade their role in the exchange. Sometimes some of the players make a rational decision only to enjoy the gains the other players enable and not to take part in the costs, hence they do not contribute to the interaction. These players are called free riders or freeloaders.

The most common situation this phenomenon occurs in is with public goods. Public goods are goods that benefit the public and financed by the public and their use isn't controlled so those who contribute and those who don't can use them equally. Examples of public goods are roads, public education, public television and radio and other services financed by the tax payer. The cost of not paying your share is so low that rationally, the free riders' action pays off. The problem of free riders is that the cost for the other players might rise and sometimes the burden is too hard so more players also leave their responsibility.

In summary, the social exchange theory emphasizes the rational considerations and cost-benefit considerations that lie beneath people's social actions. The theory also demonstrates the importance of social rewards like social status, honor, social

acceptance, respect and gratitude as incentives motivating giving within social exchange systems.

One of the most common "gifts" that can be given to others is information and knowledge. There is no doubt that the gift of information and knowledge many times requires the giver to invest time and effort for the sake of others. When giving takes place through the internet, in a decentralized and anonymous environment, the giver doesn't even know most of the receivers personally. Naturally the question arises, what motivates these givers to share their information and knowledge. Many theories and explanations tried to deal with this question.

Torvalds (1998), in an interview, declared that the highest motivation to release the first Linux version for him was the good feeling he had of creating something other people enjoy, with no connection to the fame or appreciation those people showed him. On the other end, the social appreciation and fame he received enabled him to get better jobs, so social capital was converted into financial capital. Regarding other programmers that joined the project later on and did not enjoy the same social capital, Torvalds assumes they give because they know others do the same and that people benefit from the community's giving and will enjoy a better program in a short time, unlike the development pace of commercial programs.

Kollock (1999), in his article concerning the internet gift economy also estimates that surfers are willing to cooperate and produce public goods of information for the welfare of the surfer community since they expect other surfers to help the public effort and share information. In a cost-benefit calculation the cost of supplying a small amount of information is lower than the benefit of using the information other supply. Kollock also emphasizes the wish to create social ties with other information suppliers as a motivation for giving. Ghosh (2002) emphasizes the social appreciation and good reputation the giver gets. The good

reputation can later be used in building personal and social status, just like money can be used to purchase property. Pinchot (1995) also agrees that information is part of the gift economy and as such giving it to another, instead of only holding on to it, strengthens its owner's status. Barbrook (1998) strengthens this notion and treats online giving as great potlatch (festival) of information that enables the giver to gain superiority and social status with regards to the receivers, all as a result of his generous giving.

Hall (2003) presents the possible relationship between the social trade theory and the gift of information and knowledge. She states that social trade theory can be used as a frame for the understanding of the motivating factors of information giving. In a wide literary review Hall presents researches that implemented the social trade theory in the information field and concludes first of all that information can be perceived as a gift responding to the social exchange principles while its exchange doesn't occur under market conditions and doesn't seal the relationship between the sides. In addition, the principles of the social exchange theory can contribute tremendously to understanding the motivation for information sharing between organizations.

2.8 Motivation of sharing information in the internet

Wasko and Faraj (2000) conducted one of the pioneering researches regarding sharing information through the internet. The researchers asked internet surfers in three open discussion groups dealing with technical-professional issues an open question: why do they take part in the group and help others? Content analysis of the answers suggested three groups: concrete rewards, intangible rewards and community rewards. Concrete rewards, which were 21.5% of the answers, included: access to useful information and expertise held by others, free information, access to information not found at other sources, quick and qualitative

answers to specific questions and personal gain, like personal advertisement or sales promotions. In these situations personal giving is seen as an investment that will lead eventually to gains. Intangible rewards, which were 20% of the answers, included: a sense of fulfillment and satisfaction, pleasure, improving learning and thinking abilities and self-confidence. Community rewards, which were 42% of the answers, included: a sense of commitment to give back information to the virtual community in return for information received in the past, promoting the profession and setting professional standards, receiving information with an added value for the community (expertise, interaction and feedback), brain storming and exposure to a wide range of views and professional experience. The researchers also got answers regarding the reasons that prevent people from helping or sharing information and these included: lack of time, a sense of low ability and fear of being used by others or being attacked by the other surfers. In a later study, Faraj and Wasko (2001) found that the will to make social ties didn't predict information giving in a discussion group but the wish to progress professionally was significantly positively connected to the tendency to share information. The giver's expertise was also positively linked to the tendency to share information, so experts gave more information the amateurs. A sense of obligation to give to the community was found as an important factor in the decision to give, unlike the sense of trust that wasn't important. A later study conducted by Wasko and Faraj (2005) used questionnaires that were filled out by 604 discussion group participants and examined seven motives for sharing information within a group. The expectations were to find social appreciation and recognition, enjoying the act of giving, status in the professional community, subjective expertise of the giver, a sense of obligation to give and expectance to receive in return in the future. This research found similar results. The wish to receive social appreciation and recognition from a professional group of people was found to be the most influential factor to the willingness to share information with the group. The

giver's social status in the community, his subjective sense of expertise and the expectance to get something in return also had an effect on the willingness to give. Surprisingly, the sense of enjoying the act of giving and helping the other had only small effect on the willingness to give and sense of obligation didn't have any effect at all.

Blanchard and Markus (2004) interviewed three types of participants in a discussion group about sport: leaders (very active participants), regular participants and passive readers. They found that within the group a sense of community was built and it led to mutual support, the ability to recognize other users, social ties, a sense of trust and a sense of commitment to the others in the group. These motivated information sharing between the group members. Moore and Serva (2007) report of similar findings in a research conducted on feelings of community among internet surfers writing on Wikipedia and among computer discussion group members. They claim that the feeling of belonging and cooperation were the primary and strongest motives for contributing. Maloney-Krichmar and Preece (2005) conducted an ethnographic research over two and a half years in a virtual community based on electronic discussion groups and reported the existence of strong social norms obligating all the participants and passed on to new participants in a socialization process. These behavioral norms create a calm atmosphere in the forum, the participants' sense of trust rises and mutual help can take place.

The question regarding motivation to share information was raised also regarding open code communities and file sharing communities. Bergquist and Ljungberg (2001) claim that, typically, an open code project begins when a single programmer wants to solve a problem affecting his work. Hertel, Niedner and Herrmann (2003) collected motivation question from 141 programmers belonging to the Linux community and found that pragmatic motivations like the wish to improve one's own program or the wish to progress professionally motivated the

programmers to contribute to the project. Researchers also found that the sense of self-efficacy can predict activity of programming but the sense of trust in other programmers plays a minor role in prediction of giving/sharing. Ghosh (2002) also found that open code developers are mainly motivated by building themselves better programs, the wish to learn and develop, the wish to share their own knowledge, the wish to cooperate with others and correct other's mistakes and the wish to oppose the power software companies have. A different study found that most programmers are driven by the wish to build their human capital (Hars and Ou, 2002). Lakhani and Wolf (2005) examined motivation to participate in open code projects, among 684 participants. They emphasize that only a combination of intrinsic and extrinsic motivation can give a good explanation to open code phenomena. The researchers also found that personal need of the program and code development joy were the main motivation factors for participating in such projects. Other motivations were identification with the program developer's community and sense of obligation to give back in return of development gained from the community. Interestingly, motivations which were found to be central in other studies, like social appraisal, professional status or the will to resist the power held by software companies (Ghosh, 2002; Lerner and Tirole, 2002) were found to have only low influence.

The social norm obliging every developer to share his work with the public is contributing to the strong belief that he will get something back in return. Bergquist and Ljungberg (2001) also explain the phenomena of contributing to the open code project through the gift economy theory but using a different explanation: giving information establishes the giver's superiority and the receiver's inferiority. The "payment" to the giver in a developers' community includes respect and fame that come with his superiority.

Unlike open code programs, the phenomena of file sharing usually leads to more egoistic motives. Cunningham, Alexander and Adilov (2004) argue that the

success of file sharing communities can be explained by the participants' personal interest to lower costs of files from other sources. File sharers expect their colleagues to also share files and want to enjoy the great amount of files and other contributions from their colleagues in return for their small contribution (Ripeanu et al., 2006). Another research (McGee and Skageby, 2004) have found file sharers sometimes act out of ideological motivations that oppose the unjust system that charges large sums of money for programs, music and videos or support the notion of information wants to be free. Rehn (2004) still analyze this case by the terms of gift economy. Giesler (2006) sees the files as "light" objects which are passed in a constant circular way between the participants and supply the need to give back through a general trade/exchange mechanism. Rhen, on the other hand, claims that the "heavy" sharers want the respect they get from being fast and free file suppliers and compete who will have the highest social status. In order to hold on to the superiority in the web, one has to constantly give much more than what he gets in return, just like in a gift giving festival, a potlatch.

One can wonder also why people manage/write blogs supplying professional and useful information to other internet surfers. Very few studies have dealt with this question and these studies don't distinguish between the different blog types. Nardi and her colleagues held interviews with 23 bloggers and found five main motivations: documenting their life and updating family and friends, expressing personal opinions, expressing inner feelings aloud as a treatment substitute, helping a muse or thought through writing and a platform for social ties with other blog readers in order to get their opinions (Nardi, Schiano and Gumbrecht, 2004; Nardi et al., 2004). In a study conducted on 79 subjects in the Interdisciplinary Center (IDC) in Israel it was found that people open and hold blogs in order to express their selves and ease their loneliness (Amichai-Hamburger, 2007). Efimova (2003) found similar results in her study. Miura and Yamashita (2007) conducted a quantitative study on 1434 Japanese bloggers using their blog as a

personal diary and found that the bloggers' satisfaction from writing the blog and the decision to keep on writing the blog were effected by different "benefits" they got. These "benefits" included: deeper understanding of their selves, strengthening the connection with the readers and strengthening their technical capabilities. Researchers also found that positive feedback from the readers had a big effect on the motivation to write. A different study by Lu and Hsiao (2007) found that feedback didn't have a direct effect on the bloggers' willingness to update the blog but the sense of personal ability and expectance for outside rewards have a great effect on the intension to keep maintaining the blog.

Unlike the little amount of research regarding information sharing in blog writing, the phenomena of writing for Wikipedia has aroused a lot of interest in the research community, though the research is very new yet. Nov (2007) examined the reasons people write/give information for the English Wikipedia and found that enjoying the writing and ideology similar to that of open code and file sharing were the most significant motivations. Bryant, Forte and Brukman (2005) had similar findings in their research. Surprisingly, the connection/tie between the prominence of the ideological motivation and the frequency of writing for Wikipedia was found to be not significant. Nov assesses that a person with strong ideological motivation will divide his time between writing for Wikipedia, donating to open code and file sharing projects, ideological writing in internet forms and so on so the frequency of his writing will be lower. Schroer and Hertel (2007) measured the sense of satisfaction and the amount of time dedicated to giving amongst 106 writers from the German Wikipedia and found that the general sense of satisfaction from their doing for Wikipedia was determined by the equilibrium between the cost and gain of giving (as suggested by the social trade theory), as a result of sense of identification with the Wikipedia community and perception of the task characteristics. Contradictory to the researchers' expectations a negative connection was found between the cost-benefit/gain

equilibrium and giving, perhaps because of the inability to receive outer incentives, which are very common in cases of open code projects for example. People writing for Wikipedia need to develop a high tolerance to the significant costs of the writing (such as time, receiving negative feedback from other writers). Schroer and Hertel suggest that in this case internal rewards assessment will better explain the phenomena of giving/writing for Wikipedia. Another study that raised a similar suggestion found that Wikipedia writers that experience corrections to articles they wrote from other Wikipedia writers tend to contribute less even though the effect of the bad feelings from the corrections lessens with the rise of time the person gives to Wikipedia (Zhang and Zhu, 2006).

To summarize, the main motives of information sharing in the internet are:

- Concrete rewards:
    - Access to useful information and expertise held by others
    - Quick and qualitative answers to specific questions
    - Free information
    - Personal gain, like personal advertisement or sales promotions, immediate or in the future
- Intangible rewards:
    - Sense of fulfillment and satisfaction
    - Pleasure
    - Improving learning and thinking abilities
    - Promoting the profession and setting professional standards
    - Self-confidence and sense of self-efficacy
    - Social appreciation and recognition
    - Ideology against big corporates - the notion of free information
- Community rewards:
    - Sense of commitment to give back to the virtual community in return for information received in the past

- Sense of community
- The ability to express their selves
- Ease feelings of loneliness
- Promoting status in the professional community

2.9 The power of the social network represented in social buying

Social buying became an extremely popular phenomenon in the last year, with more than 50 million people that subscribed to Groupon, the largest US-based group buying website, until January 2011 (Groupon statistics, 2011) and more than 33.5 million coupons that were sold by March 14, 2011 (Groupon website, 2011). This market growth potential brought Google to offer 6 billion dollars for potential acquisition of Groupon, an offer that was rejected by Groupon (Bloomberg BusinessWeek, 2011).

In a recent survey done in the US, it was found that U.S. adult internet users subscribe to an average of almost three daily or weekly shopping emails or newsletters, and 56% of internet users subscribe to at least two of the emails (Yahoo! Mail and Ipsos OTX MediaCT, 2011). Subscribers also said they regularly read the emails and most of them also pass the messages to friends and family.

The main idea behind this new concept in the current social buying trend is that businesses offer coupons with different face values for various products and services, mostly within a certain domestic area (versus nationally or globally). The coupons are usually offered for discount levels that are 50% or higher, that in many cases introduce a real bargain. In these cases, consumers perceive prices as being fair, and as a result would increase their purchase intentions (Lee, Abdou and Lawson-Body, 2011). Still, there are cases, where businesses are using this

mechanism for dynamic pricing purposes, cases where customers might not appreciate as being high on price fairness.

For businesses, offering these deep discount levels, in addition to paying the coupons distributors' fees, means that they don't make money on these coupons, and in some cases they even lose money. Still, many businesses use this tool as a marketing tool which promotes their brand, which is especially important for new and unknown brands. The intention is that shoppers that experience the product/service will continue to use it moving forward on regular prices. Comparing to other lead generation engines, such as Google Ads, the group buying mechanism provides an attractive opportunity. Nevertheless, post-promotion price expectations might drop when using deep discounts that are higher than 50%. In order to avoid that, marketers are not repeating these promotions on a regular basis, and in addition they should use percent-based discounts that make the calculation of the new price difficult (DelVecchio, Krishnan and Smith, 2007). These considerations are specifically important in promoting high-end brands.

Another driver that is pushing businesses to use group buying is cash flow, as companies can generate an immediate cash flow that equals in many cases to their revenues in 3-6 months. This option is especially favorable for small and medium businesses.

Another indirect effect that creates value for new or old but not so popular businesses is the positive perception of the physical location of the business (restaurant, shop or other) full of customers for many weeks/months in a row. This perception can create an image of a popular and successful business.

Social buying is a phenomenon that could only be possible (in this large extent) using the internet. Although Porter claimed that there was no major change in the competitive arena with the introduction of the internet (Porter, 2001), but on the face of it, group buying might introduce a radical change, as many customers

might only spend their money on products and services that are offered in group-buying coupons. Moreover, many of the customers that are buying these coupons buy it only as a result of the deep discount level, even if they don't really need the specific product or service.

The internet in general changed the balance of power between buyers and sellers (Baye, Michael, Rupert, Gatti, Kattuman and Morgan, 2007). Until 20 years ago, sellers had most of the power. They were controlling the market and usually had more information about the consumers compared to the information consumers had about them (prices, locations, promotions and others). When wanting to buy a television 20-30 years ago, one would usually consulted with 2-3 of his neighbors, in addition to visiting 2-3 stores in his area. The internet changed this picture. Consumers have greater power than sellers today as they can have at least the same information as sellers have, if not greater information (since there are some information sources that might be restricted for sellers, such as blogs, social networks and others).

This feeling of power and control gives consumers the ability to use coupons and discounts from a position of power, and be proud of it, rather than feeling shame in using discount products/services.

The group buying phenomenon started to flourish as a result of the social networks and their virality. The Internet alone was not enough, as the fundamental characteristic of group buying is the fact that there is a large number of people that are interested in buying the same thing in a preset point of time. The joint interest makes people tell their friends about the attractive offers and as a result there are enough buyers that make the "deal" possible (each deal has a minimum number of buyers that are needed in order to enable it). Through most of the group buying sites, one can notify all his hundreds of Facebook friends (for instance) about the deal using a single click. This virality would probably not work using emails, since

it requires too much “investment” on the consumer side, but with functions such as “Like” and “Share” on Facebook, consumers are happy to pass the message to their friends within seconds. The value that they get out of this small effort is twofold: enabling the “deal” they’re interested in and let their friends and family enjoy it, as well. The group buying phenomenon and the hype it created in the world is a good example of the strength of word of mouth in social network for commercial purposes. The group buying sites are focused on the commercial angle of the social network, and as such can represent as an essence to the subject of this research.

2.10 The characteristics of the “friends” group on Facebook

Viral word of mouth is transferred between people that share the same group. This group can be a group of friends from a certain school, a group of friends from the same company and alike. The “friends group” in Facebook is a new type of group that although one can claim that it is a group, and as such can act as a platform for viral word of mouth, this claim is not necessarily true.

One can define a group in different ways, as one definition emphasizes the face-to-face relationship in a definition that says “at least two people that interact face to face with each other and are conscious to their dependency in each other for achieving common goals” (Johnson and Johnson, 1987), while another definition where the face-to-face relationships is not mandatory says "a cluster of people that connect together to achieve a particular goal or satisfy a particular need" (Deutsch, 1959). In order to find out whether one can see Facebook as a substitute for traditional groups, there is the basic need to examine whether the group of friends of each Facebook member is a group by definition.

Each member’s friends group on Facebook includes the member himself and all the Facebook members that are connected directly to him in the system. This group shares information published by its members, and usually interacts at some level.

The “Friends” group is a fairly large group that has in average about 130 members, probably a lot more than most traditional social groups mentioned above. Judging from the definitions of groups mentioned above, the first definition emphasizes the in-person relationship excludes the “group of friends” on Facebook from the definition of a group, since it has almost no face to face contacts, while the other definition that doesn’t require face to face contact, might define the “group of friends” on Facebook as a group.

Another view on identification with groups is the approach of individualism vs. collectivism that is based on one of the Hofstede cultural dimensions (Hofstede, 1983). This index defines the emphasis of a culture or a person (as a part of the culture) on personal interests against the group’s interests. Collective cultures, in this context, equal to identification with groups. For example, Israel ranks in the middle of the scale (score 54 out of 100), so from this point, Israelis has a medium emphasis on identification with groups. Triandis and Gelfand (1998) proposed to distinguish between vertical collectivism, where a person subordinates himself to the group, and horizontal collectivism, which highlight people and their common dependence on the rest of the group. Horizontal collectivism matches better the identification with groups on Facebook, since Facebook friends are all equal, with no managers or other authority entities.

While it is possible to measure the strength of a group using objective measures such as group homogeneity, stability of the group, interactions between the group members and others, this study is focused on the subjective perceptions of people about the groups they belong to, perceptions that vary between the different groups an individual is identifying with in their characteristics, their roles and the interaction between group members (Lickel, Hamilton and Sherman, 2001). A study done by Lickel et al. (2000) found five types of groups one can use in order to categorize most existing groups - intimacy groups, task groups, social categories, loose associations and transitory groups. Regarding to the friends group

in Facebook, it is not obvious which category can be associated with this group. While a group of "Friends" was associated with the intimate group category in the study, it seems “Facebook friends" have a different meaning, as it is difficult to treat a group of 130 people on average as an intimate group. On the other end it is also not a social category, which usually is much larger group. The absence of a specific task and without a sense of temporariness, the nearest category is the loose associations, a category that was low on the social identity of its members.

The discussion of the category of the friends group is relevant if we assume that the friends group is a group. Although according to some group definitions, it can be considered as a group, it is still unclear whether this is how Facebook users perceive it. One influential dimension that can assist in solving this dilemma is the group entitativity. Group entitativity is "the degree a group is having the nature of an entity, is having real existence” (Campbell, 1958). This academic definition was found to be correlated by Lickel et al. (2000) to a number of related perceived attributes that were connected to the level of the perceived entitativity. These attributes are: the degree of interaction between members, the importance of the group to its members, similarity between the group members and the existence of common goals/outcomes (in order of influence). Group size had relatively small negative impact on the perceived degree of entitativity, although the effect of group size on the level of entitativity is not consistent across studies. On another study it was found that the size of the group contributes to the sense of group cohesion, as opposed to what one can think (McGarty, Haslam, Hutchinson and Grace, 1995).

The level of interaction between group members that was found to effect entitativity was also analyzed in another research. It was found that the more active the interaction between group members is, the greater the entitativity they feel is (Gaertner and Schopler, 1998). Facebook friends groups often tend to be active, since there are many members in each group, and even if only a small number of

members is active, it gives a sense of activity to the whole group (especially because each message is sent to all the members of the group). According to this criterion, then, the entitativity perception of the Facebook friends group has to be relatively high.

Entitativity is strongly linked with group identification (Castano, Yzerbyt and Bourguignon, 2003; Lickel et al., 2000). Members of loose associations (mentioned above as having low entitativity) are also found to have low levels of social identification with the other members of the group. It was also found that identification with groups that have high perceived entitativity increases especially when a person is in a state of uncertainty (Hogg, Sherman, Dierselhuis, Maitner and Moffitt, 2007). This later finding could explain the use Facebook users are doing in their friends group as a support source in difficult and less certain times, as internet users do with their virtual friends (Morahan-Martin and Schumacher, 2003).

Perceived entitativity is not just the result of different characteristics of a group, but it is also a factor that can distort the perception of an individual on an out-group (people that are outside of a person's group). People who perceive a group as being more entitative, use to more often compare its members to each other, because they see these group members as a collection of people who should be similar to one another (Pickett, 2001). For example, people that were manipulated to believe that a group is more entitative that it really was perceived the group members as have higher similarity in various psychological aspects, as well as physical aspects such as skin color of the group members (Dasgupta, Banaji and Abelson, 1999).

The usage of stereotypes for out-groups is also more common as the group entitativity is perceived to be higher, since in this case there is a greater perceived similarity between members of the group. Therefore attributes associated to one

member are projected on the other group members (Crawford, Sherman and Hamilton, 2002).

It seems, therefore, that perceived entitativity is a phenomenon that reinforces itself. Different characteristics of the group, such as the level of interaction, increase the group perceived entitativity, which causes group members to be perceived as more similar physically and emotionally to each other, which, in turn, increase even more the level of the perceived entitativity.

Collective self-esteem of the Facebook friends group is also influencing the group entitativity. Social identity theory (Tajfel and Turner, 1979) describes self-identity as a combination of two components: personal identity and social identity. Personal identity includes the qualities, attitudes and skills of an individual, which distinguish him from others. Social identity, from the other end, includes the common characteristics of the individual and the other people in the groups he belongs to. Since every human being has a need to have a positive social identity, he draws that identity by comparing the group to which he belongs to (in-group) with other groups (out-groups) and seeing his in-group as favorite compare to others. This in-group preference is caused by one's motivation to see his group as different and better as other groups, to support his own social identity. This desire is at the basis of the collective self-esteem (Crocker and Luhtanen, 1990) each person "protects", especially when it is attacked, in order to maintain his positive self-identity.

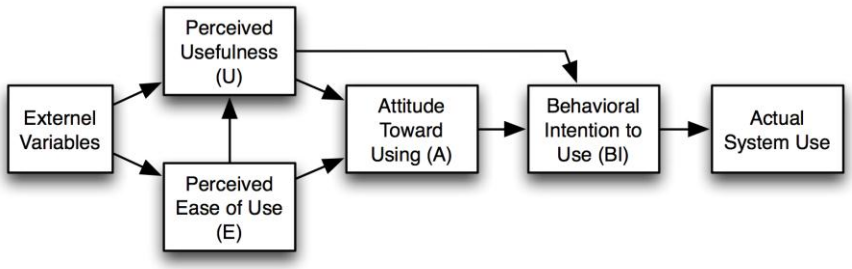
2.11 The Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a theory that came from the information systems school of thought, in order to extend the theory of reasoned action (TRA) of Ajzen and Fishbein's (Ajzen and Fishbein, 1980) and to adopt it to technology-oriented actions. Both theories are trying to predict human's activity by

looking at different factors. The TAM model predicts the acceptance and usage of technology-oriented actions, which explains its vast popularity in recent years, when technology is in the heart of almost every aspect of our private and work life. According to the TAM model, people will use technology-oriented solutions based on two main factors:

- Perceived usefulness (PU) - "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989).
- Perceived ease-of-use (PEOU) – "the degree to which a person believes that using a particular system would be free from effort" (Davis, 1989).

Figure 2.1 - The Technology Acceptance Model (Davis, 1989)



As indicated in figure 2.1, both factors are influenced by external variables and the perceived ease of use influences the perceived usefulness. Both perceived usefulness and perceived ease of use affect the attitude toward using the technology, which in turn influence the behavioral intention that is also influenced directly by the perceived usefulness. Behavioral intention influences the actual usage of the systems.

In a meta-analysis that looked at many researches that used the TAM model it was found that the relationships between PU and PEOU and the relationships between PU and technology acceptance (TA) are strong. The relationships between PEOU and TA were found to be weak (Ma and Liu, 2004).

As the usage of the TAM model was spread, additional operational definitions of the PU and PEOU factors were validated. In the Ma and Liu (2004) meta-analysis, they found 50 items to measure PU and 38 items to measure PEOU. The difference between the different items is the adaptation of the model to different technologies, but the essence of all the different measurements was found to be equal.

The TAM model assumes freedom of choice, and is based on behavioral principals, similar to the TRA model. Unfortunately some technical systems can get complex, and although the individual might think that he'll use it, he might find it too difficult for him, or not as pleasant as he thought it'll be (Bagozzi and Warshaw 1992). Talking about Facebook, although the basic usage of the system is simple, Facebook is keep enhancing it, and makes it more complex, and there are also thousands of applications that are plugged into the system, and are not easy to understand.

The TAM model and its questionnaire were validated in many different cases. Its reliability was found to be high and it has good test-retest reliability (Hendrickson, Massey and Cronan, 1993). In addition the TAM questionnaire was found to have good predictive validity for intent to use, self-reported usage and attitude toward use (Szajna, 1994).

During the years there were various attempts to extend the TAM model in order to improve its predictability. One attempt extended the TAM model to a TAM2 model, by adding social influence factors and cognitive instrumental processes. The social influence factors included the subjective norm, voluntariness and image of the new technology and the cognitive instrumental processes included the job relevance, output quality, result demonstrability and perceived ease of use. As factors that influence ease of use, this model name control conditions (both internal and external), intrinsic motivation and emotion (Venkatesh and Davis, 2000; Venkatesh, 2000).

Another important upgrade to the TAM model was the unified theory of acceptance and use of technology (UTAUT) that discussed four constructs that influence behavior intention and actual behavior: performance expectancy, effort expectancy, social influence and facilitating conditions. The performance expectancy represents the expectations regarding the help the system will provide the individual. Effort expectancy represents the expectations regarding the easiness of the system usage. Social influence represents the perceptions regarding what meaningful others will want the individual to do. Facilitating conditions represents other things that will assist in the usage of the system, such as customer support (Venkatesh, Morris, Davis and Davis, 2003).

The last important enhancement to the TAM model was the TAM3 model (Venkatesh and Bala 2008) that adds to the TAM model the perspective of possible interventions that can assist in technology acceptance. These interventions can mainly influence the determinants of perceived usefulness and perceived ease of use, and can help managers take actions that will lead to better and more rapid acceptance.

Despite the fact that the TAM model was used in many researches, there are also critics about it. The critics about the TAM model are focused around the fact that as a theory it has many limitations. It has no falsifiability, its heuristic value is questionable, it has a limited predictive power, it is trivial and it has no practical value (Chuttur, 2009).

The TAM model is strongly focused on the utilitarian motivations that lead people to use the information systems. In recent analysis that tested the TAM model on mobile telephones, it's been found that there is another independent factor that is strongly connected to the willingness to use information-oriented products and services. This factor is self-expressiveness (Pedersen, 2001; Pedersen, 2002; Pedersen, Nysveen and Thorbjørnsen, 2003), and it was found to be connected also to the usage of systems that are functional by definition, such as mobile parking

services (Pedersen and Nysveen, 2002; Pedersen and Nysveen, 2003). Self-expressiveness is a concept that is strongly connected to self-identity. It represents the importance of certain behavior, in this case as usage of an information-based product or service, to the social construction of the identity and to the self-construction of identity.

The actual definition of self-expressiveness, as defined by Halberstadt et al. (1995, p. 93) is a "persistent pattern or style in exhibiting nonverbal and verbal expressions that often but not always appear to be emotion related; this pattern or style is usually measured in terms of frequency of occurrence". The effect of self-expressiveness was investigated in different angles as influencing computer mediated technologies, and it has been discovered to have strong positive influence on people's willingness to use technologies (Bozionelos, 2001).

In a research that tested the TAM model in social networks, it was found that social networks are relatively easy to use and useful, and as a result the users' attitude towards them and the intention to use them are very positive (Pinho and Soares, 2011).

In this research, the research model was built on the TAM model and adapted it to the research topic, which is the use of social networks, and Facebook in particular, for the benefit of commercial entities. The benefit that the researcher was focused on is the use of word of mouth between the Facebook users with regards to commercial products and services. As a result the activities that were tested in this research are reading information and sharing commercial information.

2.12 Cultural dimensions

Culture is a dynamic human creation that consists of different components and dimensions, such as: knowledge, beliefs, values, norms, symbols, ideologies, technologies and social institutions. As such, it has a wide influence on people

behavior, although it is so vague that it makes it difficult to define it and to understand its effect of people (McCort and Malhotra, 1993).

During the years there were many definitions of culture and different people have tried to distinguish it from other constructs, such as religion, economics and politics, but as time passes this looks like an impossible mission, as all these are well combined with each other (Sekaran, 1983).

The dynamism of culture stems from the interaction between the individuals and the society. According to the Symbolic interactionism approach at any given moment people interpret the social situation and since interpretation of human beings is subjective, it creates a constant dynamic (Blumer, 1969).

Community members differ in their thoughts and behavior. Nevertheless, the members of a certain culture share an understanding of symbols, and through them, they develop communication. Language is a system of symbols that leads to define a common mode.

There are hundreds of definitions for culture. Kroeber and Kluckhohn (1952) collected 164 of them, and discussed the explicit and implicit elements within a culture.

There are differences between the sociologic way and the religious way in defining culture. Sociologists base their definition on social behavior and evidences, while religious people view the social reality as based on beliefs and ideas that cannot be tested empirically or statements that people perceive them as truths.

Culture influences the behavior of people in a society, but it does not control it completely. People tend to follow the norms and values in the society but may deviate from them in different situations. Cultural patterns direct the feelings and emotional reactions of human beings and yet leave the individual a space to control his emotions.

There are two well-known definitions of culture. Hofstede (1981) defined it as “the collective programming of the human mind that distinguishes the members of one

human group from those of another. Culture in this sense is a system of collectively held values". Schein (1988) defined it as "the deeper level of basic assumptions and beliefs that are shared by members of an organization that operate unconsciously and define in a basic 'taken for granted' fashion an organization's view of its self and its environment".

In order to categorize the different cultures, Hofstede (1984, 1991, and 2001) defined five cultural dimensions that are applicable for each culture around the globe. During the years, Hofstede researched the global cultures in a work-context and rated them on each of the five dimensions. The five dimensions are: individualism (IDV), uncertainty avoidance (UAI), power distance (PDI), masculinity (MAS) and long-term orientation (LTO). Each measured country has a score in each of the five dimensions (Hofstede website, 2011).

The individualism dimension has individualist cultures on one side and collective cultures on the other. In individual cultures, individuals are not connected to each other and have to take care of themself and their immediate families. These cultures reinforce individual achievement, have weak interpersonal relationships, and individuality and individual rights are key. Relationships in these cultures although being weak are very popular, meaning individuals have many "weak" friends (similar to the Facebook "friends"). Collective cultures from the other side have groups of people (smaller than the whole country) that are very tightly connected for many years. The place of the bigger families (including uncles, grandparents, etc…) is much more important and loyalty among family members, friends and even work colleagues is a key value. These cultures reinforce collective achievement and workers tend to stay longer (for lifetime, in some cases) in their companies. Among the measured countries, the United States (91), following by Australia (90) and the United Kingdom (89) are the most individualist countries, and Ecuador (8), following by Panama (11) and Venezuela (12) are the most collective countries. Surprisingly enough, Japan is rated almost in the middle with

a score of 46, Hungary is scored 80 and Israel is scored 54. Hypothesis H6 in this research is based on the relationships of individualism and the perceived usefulness of the social network. It can be expected that people from collective cultures will value the social network more than people from individual cultures.

The uncertainty avoidance dimension describes the culture's tolerance for uncertainty and ambiguity. People that belong to cultures with high scores in this dimension will try to avoid uncertainty as much as possible, and will usually have more rules, laws, regulations, controls and contracts. They'll feel uncomfortable in unstructured, unknown, surprising, different or new situations and will prefer to be in their comfort zone. In addition to that, these cultures will usually believe in the absolute truth religiously and will be more emotional. Cultures that are scored in the bottom of this index are more comfortable with uncertainty, risk and ambiguity. They are less concerned about having new and unknown experiences and will need less rules, contracts and regulations. People in these cultures will be more open to new opinions, and even religiously will be open to different schools of thought. They will not be expected to express their emotions and will be more thoughtful. Among the measured countries, Greece (112), Portugal (104) and Guatemala (101) have the highest uncertainty avoidance levels, and Singapore (8) and Jamaica (13) have the lowest levels. Japan, as expected, is rated very high as well (92), Hungary is scored 82 and Israel is scored 81. Hypothesis H4 and Hypothesis H5 in this research are based on the relationships of uncertainty avoidance, information reading and the perceived information value. It can be expected that people from cultures that prefer to minimize risks will read as much information as possible from others and will appreciate this information more than others.

The power distance dimension describes the equality of the split of power between people in the culture. In cultures that are high on this dimension, high differences between people, in terms of power, fortune and honor are accepted and even

created, both by the leaders and by the followers. It is very difficult in a hierarchal culture like that to move up the chain. In cultures where the power distance is lower, the goal is that people will be as equal as possible, even though it is obvious that complete equality is impossible. Although there are still differences in power and status, people can move to upper levels more frequently. Among the measured countries, Slovakia (104) and Malaysia (104) have the highest power distance levels, and Austria (11) and Israel (13) have the lowest levels. Surprisingly enough, Japan is rated almost in the middle with a score of 54 and Hungary is scored 46. Hypothesis H1 in this research is based on the relationships of high power-distance cultures and the size of individual's social networks. Since in high power distance cultures there are no sense of equality between people, it is expected that there will be smaller networks of friends in these cultures.

The masculinity dimension has masculine cultures on one side and feminine cultures on the other. The dimension describes how equal is the culture in distributing the power between the genders and how fixed are the gender-based roles. Masculine cultures have achievement, assertiveness, control and power as representing the ideal men, and modesty, care and no ambitions as representing the ideal women. These cultures will usually have men dominating the power and influence positions. Feminine cultures, from the other side, are much more equal in distributing the power between genders. In these cultures men and women are treated in the same way, they earn the same salaries, get to the same positions and influence others exactly in the same way. In addition, feminine cultures put more emphasis on relationships and quality of life. Among the measured countries, Slovakia (110), Japan (95) and Hungary (88) have the highest masculinity levels, and Sweden (5), Norway (8) and the Netherlands (14) have the lowest levels. Israel is scored in the middle with a score of 47. Hypothesis H2 and Hypothesis H3 in this research are based on the relationships of Masculine cultures, information sharing and the perceived value of information in the social network. It can be

expected that feminine cultures will tend to share more information with each other, as a way to promote relationships, and will also appreciate information that is shared with them.

The Long-Term orientation dimension was added after the previous four dimensions, and it was found when researching Asian people. The Asian cultures that are high on this dimension usually have a longer term view than western cultures. As a result they value thrift and perseverance, they respect the tradition, fulfilling social obligations, and protecting one's 'face'. Western cultures are low on this dimension and as a result have a much more short-term orientation. They want immediate returns for their efforts and prefer to spend their fortune instead of saving it for the future. Among the measured countries, China (118), Hong-Kong (96) and Taiwan (87) have the highest levels in this dimension, and Pakistan (0), the Czech Republic (13) and West Africa (16) have the lowest levels. Not surprisingly, Japan is graded 4th with a score of 80 and Hungary is scored in the middle of the ladder (50).

During the years there were different attempts to divide the countries that are rated on the different cultural dimensions into clusters. There are several benefits for having clusters of countries that are somehow similar culturally. The first benefit is the possibility of having a name for a specific set of cultural characteristics. The second is the ability of presenting the clusters on a map, so managers can tackle management challenges such as relocation of employees, localization of products and others in the same way for each cluster. The third benefit is the ability to figure out cultural dimensions that are related to each other. For instance, power distance and uncertainty avoidance are usually connected. The last benefit is the ability to forecast. As not all the countries were rated on the cultural dimensions, it is possible to forecast what will be the scores for a new country, even without measure it specifically. The disadvantages, from the other end, are that clustering is ignoring important differences between countries and it should be changed all the

time, since countries can change from one side of a cultural dimension to another within few years. One of the clustering researches validated 10 clusters that appeared previously in the literature. The clusters are: South Asia, Anglo, Arab, Germanic Europe, Latin Europe, Eastern Europe, Confucian Asia, Latin America, Sub-Sahara Africa and Nordic Europe (Gupta, Hanges and Dorfman, 2002).

Chapter 3 – Preliminary researches

3.1 Message virality in social networks

3.1.1 Introduction

Building of buying demand virally takes time. Looking at the DAGMAR model (Colley, 1961), the social media can be used for progressing consumers up the ladder from being unaware towards taking purchasing actions. Still, one of the main question marks is regarding the viral distribution of the messages within the network – is the message widely reaching the audience but has little effect on each individual (in terms of moving him up the DAGMAR model) or is it narrower in its reach but has high impact on the "infected" individuals.

In order to preliminary test the way a viral message is distributed within a social network, a real-life test has been conducted. In this test, a real restaurant was promoted virally within Facebook and the information flow was tracked. The restaurant is called "Cramim" and it is located in Israel, in a country-side location around 50 kilometers south of Tel-Aviv. The restaurant's chef was exposed to the public in one of the reality TV shows called "The Kitchen", where he won a competition against other teams. The messages that were promoting the restaurant were distributed to a pre-defined set of individuals that then distributed it further to their networks, etc.

Word of mouth is the ancient phenomenon of passing information from one person to another. Word-of-mouth marketing is a wide umbrella of different marketing approaches that include: blogs, buzz marketing, viral marketing, social media marketing, consumer communities and others. The messages that are delivered by word of mouth are usually more credible, as the receiver has the reason to believe that the sender of the message got no benefit for transferring the information. Thus, it is extremely effective in supporting service businesses such as restaurants.

Electronic word of mouth became very popular with the flourishing of the electronic social networks. The social networks are becoming the facto standard in today's communication between friends and are exchanging other communication tools such as: face to face, phone, mobile and even electronic mail.
The goal of this experiment is then to increase the "Cramim" restaurant's popularity among the social network (Facebook) users by spreading the information about it, using viral marketing techniques within the social network. In order to increase the attractiveness of the restaurant, networkers would get special discounts and deals that will be available only to those that are becoming a part of the restaurant social group.

3.1.2 The description of the methodology of the pilot study

The goal of this experiment is to create a community of supporters of the "Cramim" restaurant (fans in the Facebook terminology). This community will then influence others and generate wider waves of demand. In addition to that, the restaurant will be able to keep better contact with its existing customers, something that will probably improve the retention of the existing customer base.
Becoming a member of the "Cramim" group (and all other groups within Facebook) is free of charge. Becoming a fan of the restaurant doesn't necessarily mean becoming a customer of the restaurant. The intention is obviously that the virtual-world restaurant supporters will become physical customers that will generate real-life demand, but this is not always the case. Also, people that will join the group have different levels of experience with the restaurant. Some already know and experienced it, others heard about it and the rest never heard about its existence.
One of the reasons that Facebook's group members become influencers is the fact that an icon of the restaurant group is becoming a part of their profile. Not only that, the fact that they joined the "Cramim" group will automatically be distributed

to all their 130 friends in average, which is the average number of member's friends in Facebook (Facebook statistics, 2009). As a result, all the friends that are connected to the new group member are exposed to the fact that he is a part of the "Cramim" group and might either question him about it or just go to the "Cramim" group to figure out what it is about. This process, that is built-in within the Facebook network, means that word of mouth and the viral marketing can actually be done without any proactive action that is taken by the group members. These members will become influencers even if they don't intend to be. The concept of influencers in social networks is much wider than in the traditional world. It's no longer just the "expert" that is influencing but it's also other influencers such as the best networker (with a large social network), the most attractive blogger and others.

After the formation of the initial community, additional content has to be updated on a regular basis in order for the group page to be an attractive online location. It should include a blog with relevant information about the restaurant but also wider information about food, wine, cooking, events and other interesting topics that are related to the culinary world. The main objective here is to make the page attractive and dynamic to the Facebook society. The two main goals are then to get as a wide audience within the group but also to make these fans visiting the restaurant group page as often as possible. Having group members that are active will prevent the need for sending push-messages to the group community, an approach that is not very positively accepted by online users.

Facebook recently launched the Facebook Pages, which allows companies to have their own profile on Facebook. In order to conduct the test, the "Cramim restaurant" Facebook page was created using the pre-defined Facebook's template for restaurant pages. In addition to the basic setup, additional contact information of the restaurant was added (such as: phone numbers, address, website URL, open hours, chef name and payment options). Facebook is also offering hundreds of

applications that can help companies in promoting their page, such as: coupon-creation application, Facebook advertisement and others but due to the focused goal of this experiment, only the coupon-creation added-value application was tested.

In order to start the distribution of the restaurant page virally, an invitation to become a fan of the "Cramim restaurant" page has been sent to 20 friends that were identified. The invitation was sent without any additional message attached to it, to avoid the influence of the audience by the recognition of the message source. During the following few weeks there were two other actions that were taken:

- A message to the existing restaurant members was sent, in which they were told that the members of the group will get special offers from time to time, and they were asked to invite their friend to join the group and enjoy these benefits.
- A special coupon was offered exclusively to the group members where they got an offer to get a free glass of wine and an appetizer while dining in the restaurant. The coupon was used in order to attract more Facebook users and give them a reason to become a fan of the "Cramim restaurant" Facebook page.

In order to follow the message that was distributed and track its path, a manual approach was taken. This approach took into account which friends each group member got and in some cases involved a direct contact to the individuals for solving cases where different "routes" were able to lead to the same person. The definition of the position of a member within a network is not always a clear-cut concept (Borgatti, Stephen P. and Everett, Martin G., 1992) and for more complicated experiments, the manual approach that was used in this case should probably be replaced by an automatic tracking of the message. Tracking methods within the social networks are developed these days, for the usage of marketers that are interested to track the distribution of their messages.

3.1.3 Findings of the pilot study

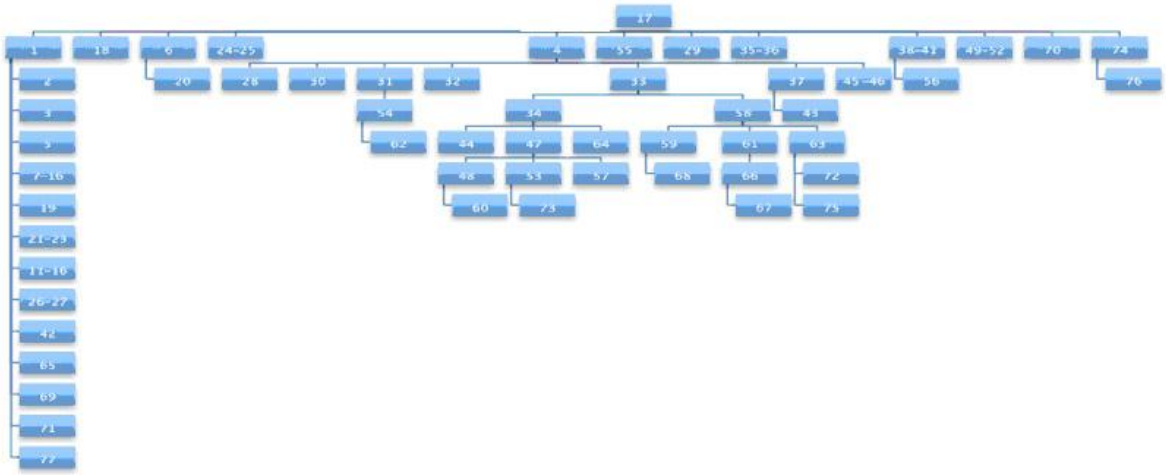
As described before, the distribution of the viral message was done in two waves. In the initial wave, the message was sent to 20 members of a given network. This wave yielded 12 new members to the “Cramim restaurant” page.

Then, during a period of one month, the coupon information was added to the group page, and another promotion of this coupon was sent to the group members. The data was then collected one month after the creation of the “Cramim” page and the submission of the first message.

During this first month 80 new members (including the first 12 members) joined the “Cramim” group.

In order to track the virality of the distributed message, a manual approach was taken. Figure 3.1.1 is the result of the message distribution tree.

Figure 3.1.1 - message distribution tree



Beside the anomaly of the long branch on the left that was developed one after the other, there are four branches with that are seven-members deep. That means that the viral message was transferred six times from the first sender of the message.

It’s important to reiterate that the “message” can be also transferred reactively by

someone within one's network that gets exposed to the restaurant group information.

In order to better understand the routes in which the messages were transferred, during the manual tracking the group members were also asked about the way in which they first heard about the group. The three ways that were mentioned were:

- A friend that became a group fan and sent an invitation to his friends
- A message of the friend joining the group was published on his publicly-exposed wall page.
- The logo of the "Cramim" group that appeared on a friend's personal info page was seen by his friends that got curious about this group

The first proactive approach was actually used very seldom. The majority of the members joined as a result of the reactive message transfer. This is really surprising since it means that the community can grow without any special efforts from the marketer side.

In order to better understand the spread of the messages, the Facebook admin statistics tool was used. It was mainly used in order to track the fans' activity and statistics:

Figure 3.1.2 shows the time-based progress of the total number of fans that joined the community during the first 5 weeks since the original message was distributed with an average of 2.3 members a day and with a convex graph that shows a growth in a reduced growth rate.

Figure 3.1.2 - Time-based progress of total number of fans joined the community during the first 5 weeks

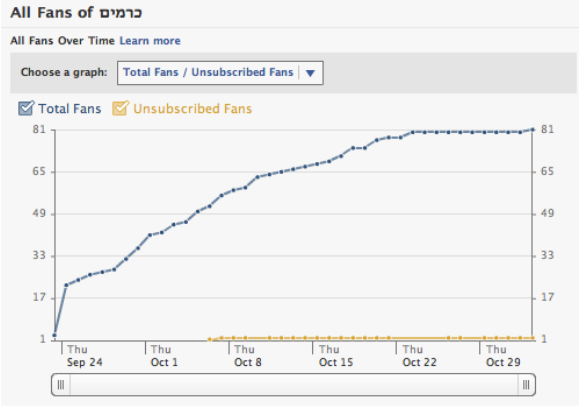


Figure 3.1.3 shows the daily growth of the group size. The reduced growing rate can be also seen in this graph.

Figure 3.1.3 - Daily growth of group size

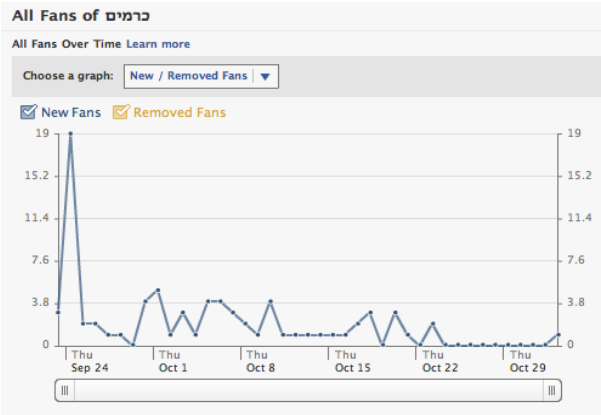


Figure 3.1.4 shows the number of page views per day. The unique page views graph shows the first time view by a user. There is a high correlation between the unique and regular page views although it's evident that the page was visited more than once by many visitors.

Figure 3.1.4 - number of page views per day

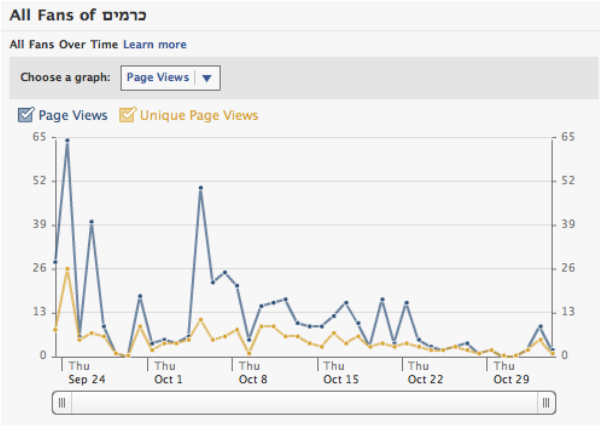


Figure 3.1.5 shows the age distribution of the group members as well as the progress in joining the group the different age groups. There is a wide distribution of ages although the biggest group is of those 25-34 years old.

Figure 3.1.5 - Age distribution of group members in joining the group

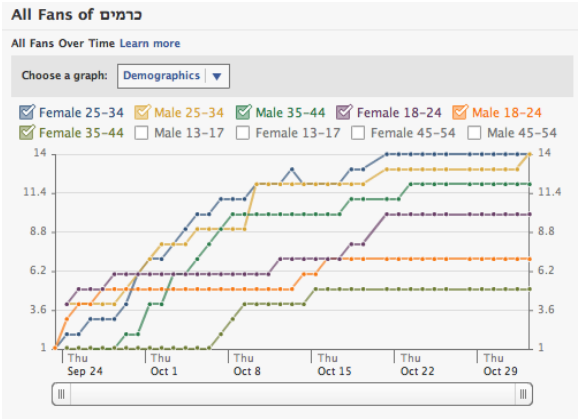
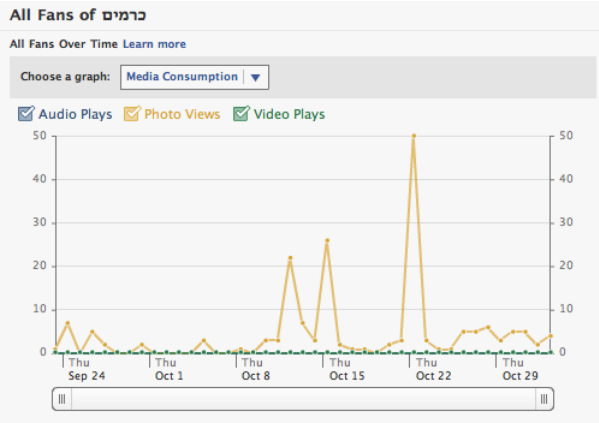


Figure 3.1.6 shows the activity of the group members that were very interested to view photos that were uploaded to the group page during the experiment. This is another sign to the active nature of the group.

Figure 3.1.6 - Activity of the group members



3.1.4 Summary

This limited experiment demonstrated the strength of the social network in creating demand for service companies (a restaurant in this case). During one month the page attracted 80 fans that are either existing or potential customers of the restaurant. Further research can be made in order to analyze the linkage between being a part of the restaurant group and becoming a customer of the restaurant. This linkage will help in measuring the possible return on a social marketing campaign (although building a Facebook page is a very cheap exercise). Of course, a more aggressive approach that would include additional marketing promotions of the group, more dynamic content of the page and more benefits to the group members would have been generated a bigger and more active group, but this experiment was created in order to analyze the virality of the messages in Facebook. The fact that out of the 80 members there were four branches of seven members each shows the healthiness of the group that is not based on a single track of friends. Another addition that can be added to a good group like that is a bi-

directional conversation with the group members, in which the members can also provide feedback to the company.

This preliminary research is a real-life experiment that was done in order to evaluate the real value of viral word of mouth information sharing in the social network. Its results show the strength of the word of mouth within the social network and are strengthen the results of this dissertation that was based on self-report questionnaires. Although people said in the questionnaires collected in the main research that they would share information and/or that they are sharing information virally, this preliminary research proves that people are really sharing commercial information virally and how fast they do that.

3.2 Possible drivers for social networks usage

3.2.1 Introduction

The current study examined the effect of various objective characteristics of a person's life environment on the degree of participation in social networks. The specific research question examined the relationship between the level of a social connection in the real world and the level of social network usage. The level of social connections in the real world was measured by demographic and psychographic variables such as marital status, and the existence of a partner and/or children. Social network usage was measured by number of posts published on the person's Facebook wall in the two months preceding the study and the number of his friends on Facebook.

Hypothesis is that there is a negative relationship between one's level of a social connection in the real world, and the extent of his use of social networking. If this is correct, the online social network can be seen as an escape or a substitute for people that lacking an extensive social network in the real world, and vice versa.

3.2.2 The description of the methodology of the pilot study

Participants: The study included 58 participants aged 28 to 56, 25 men and 33 women. The average age was 36.95. The participants were selected by a random sampling out of a Facebook friends list of 641 members, including only individuals (and not groups, etc…).

Tools and methods: A personal information questionnaire was filled out by all participants (attached in appendix A). The questionnaire collected the following information: age, sex, marital status, living with a spouse or children, size of the place of living. Furthermore, information about each participant was gathered from

Facebook including number of Facebook friends and number of messages published on the Wall during the last two months before data collection.
The independent variable in this study, the level of a social contact in the real world, was computed by providing equal weights to the following variables: marital status ("Single", "divorced" and "widow" received a value of 1, "Married" received a value of 2), living with a spouse ("No" received a value of 1, "Yes" received a value of 2), children at home ("No" received a value of 1, "Yes" received a value of 2). The dependent variable in this study, the level of use of social networks was computed as the equal weighted average of the number of messages on the Wall and the number of Facebook friends.
Procedure: A random sampling of 58 subjects was conducted for this study, out of the researcher's Facebook page, which has 641 friends. All subjects received a personal information questionnaire through a personal message in Facebook. With the questionnaire they received a brief explanation of the study and asked permission to collect personal information from their Facebook page. The participants were asked to answer the questionnaire during their free time, no later than 3 days from the receiving time. After collecting the questionnaires, information was collected regarding each participant's Facebook page: the number of friends in Facebook was captured from each participant's profile. In addition, the number of wall messages during the last couple of months preceding the date of the study, including messages published both by participants and by his friends, was captured. When there was more than one reference to the person's status each reference was counted as a different message.

3.2.3 Findings of the pilot study

This study examined the hypothesis that there is a negative correlation between the level of social connection in the real world and the extent of use of the social network.

Data concerning the level of social connection was collected by questionnaires filled out by Facebook users and information about usage of the social network was collected directly from the participant's Facebook page.

Table 3.2.1 shows the averages and standard deviations of the online social network usage level and the level of social engagement.

Table 3.2.1 - averages and standard deviations of the level of usage of the social network and the level of social engagement

	Mean	Standard Deviation
usage of the social network	102.59	75.29
social engagement	1.655	0.428

As shown in the table there is a wide range of social network usage level with a standard deviation of 75.29.
Table 3.2.2 shows the average number of participants and the standard deviation of the social network usage level in each of the three levels of social engagement, calculated as the equal weighted average of the following three variables: marital status, living with a partner and the existence of children at home.

Table 3.2.2 - Number of participants, averages and standard deviations of the level of social network usage for all levels of social contact

levels of social engagement	Mean	Standard deviation	Number of participants
1	89.88	35.74	12

1.33	167.63	116.75	12
2	84.12	53.63	34

One can see that the mean of level of social network usage of the medium social engagement level (1.33) is much higher than the other two, although the standard deviation is high in this level compared to the two other levels.

Table 3.2.3 shows the averages and standard deviations of the level of social network usage by sex of participants.

Table 3.2.3 - Averages and standard deviations of the level of social network usage by sex of the subject

Sex	Mean	Standard Deviation
Male	76.66	46.85
Female	122.23	86.78

One can see that the average level of social network usage is much higher among women than men, and their standard deviation is significantly higher.

To test the Hypothesis a one-way variance test was conducted with significance level of five percent. The hypothesis that there is some sort of connection between a person's level of social engagement in the real world and his use of the social network was confirmed $\{F(2,55) = 6.83, MSE = 4707.03, p \leq 0.05\}$.
To test the negative correlation between the variables, a Post hoc Scheffe test was conducted with significance level of five percent. Hypothesis that there is a

negative correlation between the level of a social contact in the real world, and the extent of social network's usage was not supported. The results showed that the highest level of social network usage can be found in the mid-level group of social engagement (1.33), higher significantly from the low-level group (by 77.75) and the high-level group (by 83.51). No significant difference was found in the social network usage between the low-level and high-level groups.

In addition to the findings that tested the main hypothesis, in light of the average differences found in the level of social network usage between the sexes, an additional two-way variance analysis was performed with sex as an additional variable in the variance analysis (significance level of five percent). This analysis also found a significant main effect of social engagement on the level of usage of the social network $\{F(2,53) = 20.41, MSE = 2{,}421, p \leq 0.05\}$. Likewise, it was found that sex had a significant main effect on the level of usage of the social network $\{F(1,53) = 42.47, p \leq 0.05\}$. The effect means that the level of women's usage of the social network is significantly higher than men's usage. It was also found that there is a significant interaction effect between gender and the level of social engagement $\{F(1,53) = 36.78, p \leq 0.05\}$ which means that there is an effect of the human's gender on the relationship between his level of social contact and his social network usage.

3.2.4 Summary

The purpose of this study was to examine the relationship between the level of social connections in the real world and the use of the online social networks. The Internet (social networks as part of it), is reducing the feeling of loneliness and depression of many of its users (Kraut et al., 1998) but is also replacing real life interactions with families and friends, for many users (Kraut et al., 1998) which is resulting in social isolation. Results of the current study support the assumption of the connection between the level of social connection and usage intensity of social networks. But unlike the hypothesis that assumed a negative connection between

the two, we found no significant difference in social networks usage between people with low levels of social connections and those with high levels of social connections. In contrast, the group with medium level of social engagement was characterized by a much more intensive network usage then the two extreme groups. Despite the similarity between these two groups, there might be a different explanation for this behavior in each group. Perhaps the group with low levels of social connections doesn't use social networking intensively, since the social connections offered by social networking aren't significant enough for them and they don't provide them relief from their feelings of loneliness and perhaps even strengthening them (Green, Richardson, Lago, Schatten-Jones, 2001). On the other extreme the group with the high levels of social connections might not have the necessary time and motivation that massive social networking activities require. It appears that the value of social network interaction is optimal for people with medium levels of social connections, so that they have the time, motivation and energy required.

An interesting and unexpected aspect of the findings concerns gender differences in levels of social network usage and its impact on the relationship between social connections and level of network usage. Women clearly use social networking more than men. Gender also has an effect on the two variables examined in this study. This gender difference can be explained by the high importance women tend to give to the possibility of exposure through the social network (very dominant factor of virtual social networks) compared to the limited importance (relative to men) given to network size and strength (Berg and McQuinn, 1989). Perhaps the existence of a social network that allows such an intense social interaction makes women want to take a significant part of it.

The results of this study are important in characterizing the more active users of social networks as a function of their demographic characteristics such as marital

status, children at home and gender. Social networking companies themselves (like Facebook), other business firms and other self-interest groups can use the characteristics of web users to customize the way they approach them. Users' segmentation characteristics can save a lot of money wasted on marketing efforts that miss the target customers or even just provide the wrong message because of lack of knowledge of the potential consumers.

This study was limited because of the limitations of Facebook, and this was the reason for the relatively small sample group of 641 members. In addition, the demographic characteristics and social connection data were collected through questionnaires and relied on the responders' honesty. The information regarding children at home was testing the responder's perception of his living situation and not necessarily the actual data, in cases that there are children at home for part of the time, for instance.

Despite the characterization of the social network users found in this study, additional characteristics should be a subject for future research. A comparison research of Facebook and other social networks can also provide very important information.

This preliminary research was done in order to understand the characteristics of the Facebook user both within the network, and in the real world. This dual-life phenomenon is specifically important for commercial entities that also appear both in the real world and in the social network. The results of this preliminary research can help companies that are segmenting their customers that are relevant for their social media marketing efforts.

3.3 Preliminary research – social networks group entitativity

3.3.1 Introduction

The current study was conducted in order to analyze the characteristics of the groups in Facebook. This is important in order to realize these groups can be used as a platform for exchanging commercial information, and if the communication in these groups can be considered as word of mouth from known favorite sources.
The study was focused on one type of groups on Facebook, the groups of friends of each individual Facebook member. In addition to these groups, Facebook is also used as a platform for different groups of interest (Facebook Groups). The Facebook groups can be joined by any Facebook member and they are usually used for discussions about specific topics, similar to the internet forums. The entitativity of the Facebook interest groups seems to be higher than the friends groups, because in most cases, these groups have a clear and publicly stated goal, they have a group name, a picture or logo of the group and the like, features that increase the entitativity of groups (Castano, Sacchi and Gries, 2003). In addition, each member of these groups chose to be a part of this interest group, unlike a group of friends that was "created" without the intention of each participant in the group.
This study use entitativity as a dependent variable, but it is also possible to examine the impact of the perceived entitativity of a Facebook group on the extent the group members and others perceive the homogeneity within the group.
The detailed purpose of this study is to examine the factors affecting the perceived entitativity of Facebook members' friends groups. The hypotheses are:

1. *The higher the collective self-esteem of Facebook users is regarding their Facebook friends group, the higher is their perceived entitativity of this*

group.

Positive collective self-esteem contributes to one's positive identity, and therefore one would want to identify with groups in which he has a high collective self-esteem. It is reasonable to believe that these groups will be perceived then with having higher entitativity levels.

2. *The higher the level of activity of a Facebook member is, the higher is his perceived entitativity of his friends group.*

   The study did not examine the level of interaction between all members in the group. It used the member's activity on Facebook as a measure of interaction within his friends group. The assumption is that a person who spends much time on Facebook, and has many friends, interact with them more than someone with a few friends who spends little time on Facebook.

3. *The bigger one's friends group is, the lower is his perceived entitativity of this group.*

   This hypothesis matches Lickel's (2000) research, although there are other researches that showed different results.

3.3.2 The description of the methodology of the pilot study

The study involved 87 participants, 57 women and 30 men, Israeli adults aged 18-49, who have an active account on Facebook. The average age of participants was 32.24. The participants were all members of the researcher's Facebook friends group.

A questionnaire was used in order to collect information about the participants in the research. The collected information included:

1. Information about the participant's Facebook level of usage: number of friends, frequency of Facebook usage and time spent in each Facebook visit.

2. Questionnaire for collective self-esteem using the collective self-esteem scale (Crocker and Luhtanen, 1990) adapted to the subject of this research. The scale includes 14 statements such as: "I feel a valuable member among my Facebook friends group members", "I often regret that I'm a part of my Facebook group of friends", "I don't feel that I have much to contribute to my Facebook friends group", and more. The items are rated on a 7-point Likert scale from "1 - Strongly disagree" to "7 – Strongly agree". The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.849.
3. Questionnaire for the perceived group entitativity (Spencer-Rodgers, Williams, Hamilton, Peng and Wang, 2007) adapted to the subject of this research and includes 12 statements such as: "how cohesive is the group?", "How important is the group for its members?", "How organized is the group?", and more. The items are rated on a 7-point Likert scale from "1 – To a very small extent" to "7 – To a very large extent". The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.908.
4. Demographic questionnaire: sex, age, marital status, education level and income level.

The independent variable, collective self-esteem, was calculated as a simple average of the responses in the collective self-esteem questionnaire. Statements numbers 2,3,4,6,9,10,11 and 13 were coded in an opposite order.

The independent variable, level of activity in Facebook, was calculated as a simple average of the Facebook usage frequency and Facebook average usage time questions. The Facebook usage frequency question is using a 5-point scale from "less than once a month" to "several times a day". The Facebook average usage time per week is using a 7-point scale from "less than 10 minutes" to "more than 14 hours".

The dependent variable, perceived group entitativity, was calculated as a simple average of the responses to the perceived group entitativity questionnaire. Statements numbers 8,9,10 were coded in an opposite order.
For the purpose of this research, the researcher's Facebook page was used, with its 635 Facebook friends. A note regarding this research was published on the researcher's wall, with a reference to download the questionnaire from Google Docs. Facebook users who saw the message and wanted to answer the questionnaire, downloaded it, filled it and sent it back to the researcher from an anonymous email address that was created specifically for the purpose of this study. In addition, the questionnaire was also virally distributed to friends of the researcher's friends.

3.3.3 Findings of the pilot study

Table 3.3.1 shows the averages, standard deviations, minimum and maximum of the perceived group entitativity and collective self-esteem of the Facebook friends group.

Table 3.3.1 - averages, standard deviations, minimum and maximum of the perceived group entitativity and collective self-esteem of the Facebook friends group

	Collective self-esteem	Perceived group entitativity
Average	3.769	3.274
Standard deviation	0.937	1.12
Minimum	1.86	1.17
Maximum	6.43	6.5

As shown in the table above, there is a wide distribution in the perceived group entitativity levels with a standard deviation of 1.12. Also, there is a wide distribution in the collective self-esteem levels with a standard deviation of 0.937. Table 3.3.2 shows the number of participants, averages and standard deviations of the perceived group entitativity in the different activity levels of the participants. Activity level was calculated as the sum of the variables: frequency of usage and time of usage.

Table 3.3.2 - number of participants, averages and standard deviations of the perceived group entitativity in the different activity levels

Activity Level	Entitativity level	Standard Deviation	Number of participants
1.0	**2.75**	0.59	2
1.5	**3.30**	1.18	8
2.0	**3.46**	1.24	2
2.5	**2.90**	0.60	8
3.0	**3.10**	1.14	9
3.5	**3.01**	1.00	11
4.0	**2.91**	0.84	10
4.5	**3.53**	1.16	9
5.0	**3.28**	1.28	12
5.5	**3.63**	1.67	8
6.0	**4.08**	1.07	8

As shown in the table above, there are high levels of entitativity (3.28-4.08) in the higher activity levels (4.5 to 6) compared to the lower levels of entitativity (2.9-3.2) in the lower activity levels (2.5-4). In contrast, in the very low levels of

activity (1.5, 2) there is a high level of entitativity (3.3 to 3.46). In order to understand this inconsistency in the low activity levels, an analysis of the components of the activity level variable was conducted. This analysis shows high levels of perceived entitativity among Facebook users with usage frequency of 1-4 times a month (3.38) and among users who spend less than 10 minutes per week on Facebook (3.34).

Table 3.3.3 shows the number of participants, averages and standard deviations of the perceived group entitativity in the different friends groups' sizes.

Table 3.3.3 - number of participants, averages and standard deviations of the perceived group entitativity in the different friends groups' sizes

Number of friends	Entitativity level	Standard Deviation	Number of participants
Less than 10	**2.33**	.	1
11-50	**3.95**	1.13	5
51-150	**3.06**	0.77	25
151-400	**3.29**	1.19	35
More than 400	**3.38**	1.34	21

As shown in the table above, the entitativity levels increase starting from very low levels (2.33) in small groups that have less than 10 members, to high levels (3.38) in the very large groups (over 400 members). Still the highest level of entitativity (3.95) was found in the small-medium sized groups (11-50 friends).

There is a significant correlation of 0.584 ($p < 0.01$) between the size of the Facebook friends group and the activity levels of the Facebook member.

Table 3.3.4 shows the number of participants, averages and standard deviations of the perceived group entitativity in the different age groups.

Table 3.3.4 - number of participants, averages and standard deviations of the perceived group entitativity in the different age groups

Age	Entitativity level	Standard Deviation	Number of participants
18-23	**4.80**	1.25	5
24-28	**2.88**	1.16	15
29-34	**3.29**	0.95	26
35-40	**3.04**	1.20	14
41-49	**3.24**	0.79	6

As shown in the table above, there is a significant higher level of entitativity (4.8) in the youngest age group (ages 18-23) compared to the levels of entitativity (2.88-3.29) in all the other age groups.

To test the first hypothesis, a simple regression analysis was conducted and it was confirmed that the higher the collective self-esteem of Facebook users is regarding their Facebook friends group, the higher is their perceived entitativity of this group is ($F(1,85) = 41.447$, $p < 0.05$, $R^2 = 0.32$).

To test the second hypothesis, a one-way variance analysis was conducted with significance level of five percent. The hypothesis that the higher the level of activity of a Facebook member is, the higher is his perceived entitativity of his friends group was not confirmed. An attempt was made to analyze whether the removal of the low activity levels (2-4) from the sample will make the hypothesis significant, but the results of the new one-way variance analysis on participants with activity levels that are higher than 5 was still in-significant.

To test the third hypothesis, a one-way variance analysis was conducted with significance level of five percent.

The hypothesis that the bigger one's friends group is, the lower is his perceived entitativity of this group was not confirmed.

An attempt was made to analyze whether the removal of the small friends groups (levels 1-2) from the sample will make the hypothesis significant, but the results of the new one-way variance analysis on participants with group sizes that are in level 3 and higher was still in-significant.

To examine the effect of age on the entitativity level, a one-way variance analysis was conducted with significance level of five percent. A significant main effect of age on the perceived level of entitativity was found {$F(4,61) = 3.259$, $MSE = 1.134$, $p \leq 0.05$}. To examine the source of the differences between age groups, a Post hoc Scheffe test was conducted with significance level of five percent. The results showed that the level of perceived entitativity is the highest in the lowest age group (18-23), and it is significantly higher than the perceived entitativity in the other age groups, except the highest age group (41-49).

To examine effect of other demographic variables (sex, marital status, education level and income level) on the perceived level of entitativity, various one-way variance analyses were conducted with significance level of five percent. No significant differences were found in the perceived entitativity levels depending on all the other demographic variables (except age) that were measured in this study.

3.3.4 Summary

The purpose of this study was to examine the factors that affect the perceived level of entitativity Facebook members have to their group of friends. The findings provide support for the hypothesis that the higher the collective self-esteem of Facebook users is regarding their Facebook friends group, the higher is their perceived entitativity of this group. On the other end, there was no support for the hypotheses about the effect of the activity level and size of friends group on the perceived entitativity.

With regards to the participant's level of activity on Facebook, according to the data, it is apparent that there is an increase in perceived entitativity with an

increase in that activity of Facebook, with the exclusion of members with very low usage of Facebook. The explanation for that can be that these users use Facebook only as a platform for basic linking to their real-life group of friends, hence the high entitativity perception of this group. As mentioned above, in this study there was no significant effect of the level of activity on the group entitativity.

With regards to the friends' group size, as opposed to the research hypothesis, based on the data review, there is an increase of perceived entitativity as the group of friends grows, except the smaller sized groups (11-50 members). Again, these participants may include in Facebook only their real-life friends group, hence the higher entitativity. As mentioned above, in this study there was no significant effect of the group size on the group entitativity.

It is evident from this study that the friends group in Facebook is considered by the Facebook users as a group, treat it as such and that its entitativity exist. The average entitativity of all participants in this study is slightly below the average answer in the scale used (3.274 in a 7-point Likert scale). However, the average level of entitativity found in this study is lower compared with entitativity levels found in other loose associations (Lickel et al., 2000), where the average entitativity levels when converted into a 7-point Likert scale is 3.69 (Lickel et al., 2000).

As mentioned above, we can assume that the perceived entitativity in the Facebook interest groups (Facebook Groups) will be higher than the levels found on this study, similar to the average levels of entitativity found on other task groups. In these groups, the average level of entitativity, when converted into a 7-point Likert scale is 5.49 (Lickel et al., 2000).

The variable that is significantly effecting on the perceived level of entitativity is the age. In the young participants group (18-23), entitativity levels were significantly higher than the older participants (except for participants aged 41-49). This study involved participants aged 18 and above only, because of technical

limitations. It is conceivable then that examination of younger Facebook users will find higher levels of entitativity than those found in this study, since the age has a negative influence on the perceived entitativity, especially at younger ages (Hogg, Sherman, Dierselhuis, Maitner and Moffitt, 2007).

No other demographic characteristics that affect the perceived level of Facebook group entitativity were found.

The main limitation of this study is the relatively small sample of Facebook users that was not sampled randomly from a given group of friends of the researcher. All participants were from Israel and they all chose to answer the questionnaire that was published on the researcher wall. As a result, the sample in this study does not necessarily represent the entire Facebook population. Another limitation to this research is the subjective scale-technique that used participants' opinion and perceived results.

This limited sample limitation mentioned above can be a barrier to the external validity of this study. In addition, the youth population aged 13-18 (Facebook limit the enrollment to age 13 officially) constitutes about 11% of users worldwide and 19% of users in Israel (Facebook Statistics, 2011; Socialbakers, 2011) is not represented at all in this study. As mentioned above, higher entitativity levels could be found in this young population.

In addition to the examination of the youth population, further research can examine other factors that can affect the perceived entitativity of the Facebook friends group. One example can be the permeability of the friends' group borders, which indicate how keen a Facebook user is in adding new friends to his friends group, even if they are not really in his closest circle of real friends.

One can also examine the effect of the group entitativity on various factors, such as the preference of this group of friends, seeing the members of the group as similar to one another, stereotypes about the group of friends, the contribution of the group to each of its members and others.

Another aspect that can be tested is the degree of objectivity in the perception of entitativity of the group. This study examined only the perception of a person regarding his own Facebook friends group, but since every person is a member of many different friends' groups (of each of his friends), it's interesting to figure out whether the perception of an individual regarding his own friends' group entitativity is different than his view about the entitativity of other groups that he belong to. As stated already, it is also important to examine the strength of the interest groups in Facebook, groups that are likely to have greater strength.

This study is important in order to shed light on the characteristics of the groups created on Facebook, groups that until a few years ago did not exist, and now occupy a prominent place in the lives of many people. Understanding the strength of these groups can be used for various purposes, starting from promoting social interests of one group or another and ending with promoting business interests, who want to take advantage of the social media to spread their word. Characterization of various properties that affect the strength of groups on Facebook can direct the people that want to "use" it as a marketing platform, for instance, to choose the most appropriate segment for them. For example, in order promote a particular business issue, we might want to approach groups that see themselves as more unified and meaningful, in order to increase the chances to word of mouth.

This preliminary research was done in order to evaluate whether the friends group of a Facebook user is really a group in his perception. The answer to this question is critical before examining the factors that make the user share information with his group of friends. If this group is not really a group, the whole sharing process might fall apart. The results of this preliminary research strengthen the thoughts that although "Facebook friends" are different than real friends, they are still a group of friends, in the eyes of the Facebook members.

3.4 Preliminary research – social networks pricing using group purchasing

3.4.1 Introduction

In order to better understand the phenomenon of group buying and recommend the best approach for marketers that would like to use it, one needs to examine the factors that lead to success. There are many factors that can be considered as representing a coupon's success. In this research we measured the success of the coupon by the number of coupons that were purchased, although alternative factors can be: the profitability of the coupon, the average amount of money that was spent in the point of sale in addition to the coupon value, return customers, satisfaction levels of the customers, percentage of coupon's buyers that didn't use it (or vice versa) and others.

The factors that influence the success of traditional coupons success include the coupon value, discount rate and distribution method (Reibstein and Traver, 1982). In this research we wanted to examine the factors that influence the success of coupons and we captured information about the distribution method (the source of the coupon), the region (country) where the coupon was published, the coupon value, the discount rate and the category of the coupon (restaurant, fashion and others).

3.4.2 The description of the methodology of the pilot study

The study included historical information about 238 group buying coupons that were published between May 2010 and December 2010 in four different sites:

Yemama, Grouper, Baligam and Groupon. The first three site are leading Israeli group buying sites and the forth is the US leading group buying site.

All historical coupon information was captured in December 9th, 2010 from the four sites and it was all been used in this research (no sampling was done).

The following information was collected about each coupon: Coupon value (in local currency), Discounted coupon price (in local currency), number of purchased coupons and coupon product/service category (spa, restaurants and Bars, self-care, fashion, food and others). The website and country for each coupon was captured. All USD monetary values were converted to NIS using December 8th, 2010 exchange rate.

3.4.3 Findings of the pilot study

This study examined the hypothesis that there is a positive correlation between the level of coupon discount and the amount of coupons that were purchased, and that there is a negative correlation between the coupon price and the number of purchased coupons.

Table 3.4.1 shows the value range, averages and standard deviations of coupon value, discount level and purchased quantity.

Table 3.4.1 - value range, averages and standard deviations of coupon value, discount level and purchased quantity

	Min	***Max***	***Mean***	***Standard Deviation***
Coupon value	20	1,800	260.62	280.66
Discount level	47.0%	97.0%	53.5%	7.4%
Purchased quantity	42	7185	715.18	916.6

As shown in the table there is a wide range of coupon value with a standard deviation of 280.66, as well as a wide range of purchased quantity with a standard deviation of 916.6. From the other end, although discount levels also vary, standard deviation is relatively low (7.4%) and most coupons are offered at discount levels of 50% and 60%.

Table 3.4.2 shows the number of coupons, as well as the average and standard deviation of the purchased quantities in each of the coupon types.

Table 3.4.2 - number of coupons, as well as the average and standard deviation of the purchased quantities in each of the coupon types

Type	***N***	***Mean***	***Standard Deviation***
Spa	24	934.42	802.990
Restaurants and Bars	77	1101.13	1250.227
Self-Care	31	545.03	503.071
Fashion	11	480.55	282.993
Food	26	633.69	949.948
Others	69	352.77	405.471

As shown in the table there is a difference between the amounts of coupons that are purchased in the different categories. To further examine this difference, a one-way ANOVA test was conducted with significance level of five percent. The variance in coupons quantity between the different categories was confirmed {$F(5,232) = 6.168$, $MSE = 757569.914$, $p \leq 0.05$}.

To further examine the difference between the categories, a Post hoc Scheffe test was conducted with significance level of five percent. The results show that there

is a significant difference between the amount of coupons in the "Others" category versus "Restaurants and Bars". No other difference was significant.

Table 3.4.3 shows the number of coupons, as well as the average and standard deviation of the purchased quantities in each of the websites.

Table 3.4.3 - number of coupons, as well as the average and standard deviation of the purchased quantities in each of the websites

Site	***N***	***Mean***	***Standard Deviation***
Grouper	51	1497.65	1175.791
Yemama	79	318.04	334.677
Baligam	88	462.86	554.498
Groupon	20	1398.75	1374.091

As shown in the table there is a major difference between the amounts of coupons purchased in the Grouper and Groupon sites compared to the Yemama and Baligam sites. To test the Hypothesis a one-way ANOVA test was conducted with significance level of five percent. The variance in coupons quantity between the different sites was confirmed to be significant $\{F(3,234) = 32.554, MSE = 600363.413, p \leq 0.05\}$.

To further examine the difference between the sites, a Post hoc Scheffe test was conducted with significance level of five percent. The results show that the highest levels of coupons were purchased in Grouper and Groupon (with no significant difference between the two) compared with Yemama and Baligam (with no significant difference between the two).

To test the hypothesis that there is a positive correlation between the level of coupon discount and the amount of coupons that were purchased a bivariate

Pearson correlation was calculated and a small positive correlation of 0.131 was found ($p \leq 0.05$). To test the hypothesis that there is a negative correlation between the coupon price and the number of purchased coupons a bivariate Pearson correlation was calculated and a small negative correlation of -0.164 was found ($p \leq 0.05$).

In order to better understand the effect of both the discount levels and the coupon prices on the amount of coupons that were purchased, discount levels and coupon prices were divided into a five-point order scale.

Table 3.4.4 shows the number of coupons, as well as the average and standard deviation of the purchased quantities in each of the discount categories.

Table 3.4.4 - number of coupons, as well as the average and standard deviation of the purchased quantities in each of the discount categories

Discount Category	***N***	***Mean***	***Standard Deviation***
Up to 50%	150	682.43	860.901
50%-55%	42	683.07	736.439
55%-60%	16	603.63	571.407
60%-70%	18	1122.17	1773.654
More than 70%	12	775.17	649.858

As shown in the table there is almost no difference between the discount categories up to 60% but there is a major difference between the amounts of coupons purchased in the 60%-70% discount level (1122.17) compared to the other categories (603.63-775.17). To test the Hypothesis a one-way ANOVA test was conducted with significance level of five percent. The variance in coupons quantity between the different categories was not found to be significant.

Table 3.4.5 shows the number of coupons, as well as the average and standard deviation of the purchased quantities in each of the coupon price categories.

Table 3.4.5 - number of coupons, as well as the average and standard deviation of the purchased quantities in each of the coupon price categories

Price Category (NIS)	***N***	***Mean***	***Standard Deviation***
Up to 25	32	885.00	1466.353
25-50	50	694.00	781.529
50-100	75	905.24	920.770
100-200	51	515.31	693.982
More than 200	30	433.93	513.595

As shown in the table the highest number of coupons are purchased in the price level of 50-100 NIS (905.24 coupons) with the up to 25 NIS category closely following (885 coupons). There is a major difference between these levels and the coupons with prices above 100 NIS (433.93-515.31) although there is also a drop in the quantity of sold coupons in the 25-50 NIS price range (694). To test the Hypothesis a one-way ANOVA test was conducted with significance level of five percent. The variance in coupons quantity between the different coupon prices was confirmed to be significant $\{F(4,233) = 2.459, MSE = 819970.191, p \leq 0.05\}$.
To further examine the difference between the sites, a Post hoc Scheffe test was conducted with significance level of five percent. The results didn't indicate any specific category that was significantly different than the others. In a Post hoc Dunnett test, the 50-100 NIS category was found to be significantly higher than the two categories of "100-200 NIS" and "higher than 200 NIS".

3.4.4 Summary

Social buying became an extremely popular phenomenon in the last year and the purpose of this study was to examine the factors that lead to successful group buying coupons. Results of the current study showed that there is an effect of the coupon category on the number of coupons purchased, where coupons to restaurants and bars are significantly more successful than those for other various products and services (excluding spas, self-care, fashion and food). Eating away from home was found to be very responsive to price changes, which supports the success of deep-discounts coupons in this sector (Andreyeva, Long and Brownell, 2010).

In addition it was found that there are coupons sites that are significantly more successful than others. In this research the highest levels of coupons were purchased in Grouper (Israel) and Groupon (USA) compared with Yemama (Israel) and Baligam (Israel). This phenomenon can be explained by the fact that certain group buying sites are more trusted than others, and as a result customers believe that the coupons they offer are more trustworthy and valuable (Guo, Wang and Leskovec, 2011). Grouper and Groupon, in this research, are obviously the known names, with global presence (Grouper is the Israeli subsidiary of Groupon, that few months after the collection of the data to this research, changed its name to be Groupon Israel), and as we found, also the most successful ones.

The hypothesis that there is a positive correlation between the level of coupon discount and the amount of coupons that were purchased was found to be insignificant, as the vast majority of the coupons are offered anyway around the same discount level of 50%, which is already a pretty deep discount.

The hypothesis that there is a negative correlation between the coupon price and the number of purchased coupons was found to be insignificant. Still there was a significant difference between the number of coupons purchased in the different price categories, where the 50-100 NIS category was found to be significantly

more successful (in a post hoc Dunnett test), compared to the higher coupon prices. The reason behind the success of this price category might be that products and services at this price range are expensive enough to be meaningful to bother with the coupon purchase, but not too expensive, in a way that will increase consumer involvement and will extend decision process.

This research was done using coupon data from a limited number of sites in Israel and the US, out of hundreds of group buying sites that exist globally. The trends that were found in this research might not represent the factors to success in other locations, although the similarity between the US site and the Israeli sites shows that these trends are pretty global. In addition, we believe that there is further research that has to be done to examine the price sensitivity of the coupons. This research showed a certain trend that has to be further analyzed.

In addition further research has to be done in order to check other success criteria for the coupons, aside from the number of purchased coupons.

As in every other trend, there might be changes in the ways consumers perceive and react to group buying. This research was done on data collected in the first few months of the group buying trend, but further analysis has to be done in order to find changes in the consumer behavior using online group coupons.

The results of this research can be used by both vendors as well as the group buying sites in order to balance the coupon offering in a way that will maximize their profits from this trend, which is very different that other online buying mechanisms exist today.

This preliminary research was done in order to evaluate the attractiveness of monetary “deals” that are offered to users of the social networks. This research was done since there is a belief that all social network users want to get out of the commercial entities within the social networks is only monetary rewards. The results of this preliminary research in combination with the results of the main research shows that although monetary rewards are important for the social

networkers, these rewards are effective only if they are meaningful and only in certain vertical markets. From the other end, there are other benefits that might have even higher effect on the willingness of the social networkers to participate in commercial information sharing.

Chapter 4 – The Main research

4.1 The Research Method

4.1.1 Introduction

This research was held among Facebook users that are a part of the extended network of friends of the researcher. As such this sample has to be considered as a convenience sample rather than random sample. The reason for this method of sampling was the convenience of the researcher that used the strength of the virality of messages in the social network for the sake of collecting the information for this research. Although the first messages that asked responders to fill the questionnaire were sent to the researcher's first circle of friends, these friends distribute the message to their friends, that distribute it to their friends and so on and so forth. In some cases the messages were sent to friends of friends via emails. This viral distribution created a sample that is very diverse and can be a representative sample of the research population, which is the social networks' users.

4.1.2 The research population

The population of this research is the overall social networks users' population. It includes everyone that is registered to at least one social network around the globe, no matter how active he is in using the network.

4.1.3 The research sample

The sample population for this research involved 156 participants, out of them 6 participants were not registered to any social network, and didn't answer the rest of

the questionnaire (except the first filtering question). These 6 participants were taken off the sample population. Out of the other valid 150 participants there were 90 female (60%) and 58 male (38.7%). 2 participants (1.3%) had missing gender information.

All valid participants were Israeli adults aged 18 to 56, who have an active account on a social network. The average age of the sample participants was 32.36. The participants were all either members of the researcher's Facebook friends group, or friends of friends in different social circles. All participants agreed to take a part in the research without any benefit. As stated above, the sample in this research was a convenience sample.

Based on this sample size, a confidence level of 95%, a 3.5 million Facebook users in Israel as the population size (Socialbakers, 2011) and a response distribution of 50%, the estimated margin of error is 8% (Krejcie & Morgan, 1970).

4.1.4 Ethical issues

Each respondent was asked to fill a hand signed affidavit that he agreed to participate in the research willingly and that the data of the same would be used for research purposes only. No benefit was given to and no sanctions were held against the research participants.

4.1.5 Data sources

The data sources for this research were the filled questionnaires collected from the sample population. The questionnaire used in this research was relatively long and included 29 questions in total, some of the questions were combined of many elements. The questionnaires were downloaded from “Windows Live SkyDrive”

which is an online document storage and file sharing system. The information about the questionnaire and the call to action was distributed virally via Facebook among the researcher's Facebook friends, that were then virally distributed it to their friends via Facebook or by email.

4.1.6 The research procedure

For the purpose of this research, the researcher's Facebook page was used, with its 658 Facebook friends. A note regarding this research was published on the researcher's wall, with a reference to download the questionnaire from "Windows Live SkyDrive" which is an online document storage and file sharing system. Facebook users who saw the message and wanted to answer the questionnaire, downloaded it, filled it and sent it back to the researcher from an anonymous email address that was created specifically for the purpose of this study. In addition, the questionnaire was also virally distributed to friends of the researcher's friends via Facebook or by email.

The overall data collection took place for a six months period between May 2010 and November 2010. Prior to this period, a preliminary pre-test data collection effort was done. The pre-test was done during the month of April 2010, and 10 questionnaires were collected from a pre-defined list of Facebook friends. The pre-test was used for restructuring some of the questions, clarifying other questions, add additional clauses to some of the questions and deleting others. The data collected from the pre-test was only used for improving the questionnaire and was not included in the final analyzed data.

4.1.7 Instruments and procedures

A robust questionnaire was used in order to collect information about the participants in this research. The questionnaire was built and pre-tested with 7 participants. Based on the collected data and feedback, questionnaire was adjusted in order to be better understood and capture the relevant information for this research in the most appropriate way.

The collected information included:

1. Information about the participants preferred social networks (Questions 1 and 2 in the attached questionnaire).
2. Information about the participant's level of usage in his preferred social network: length of experience, number of friends in the network, frequency of usage and time spent in each visit (Questions 3, 4, 5, and 6 in the attached questionnaire).
3. General attitude of the participant towards the preferred social network (Question 7.1 in the attached questionnaire).
4. A scale measuring the participant's passive action in the social network that includes 10 statements such as: "I feel connected to other people", "I can keep in touch with my friends and family", "I share photos with my friends" and more. The items are rated on a 5-point Likert scale from "1 - Strongly disagree" to "5 – Strongly agree" while the ninth and tenth items are presented in the opposite order. The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.818 (Question 8 in the attached questionnaire).
5. Questionnaire for measuring the participant's perceived usefulness (PU) of the social network, using the perceived usefulness scale (Davis, 1989) adapted to

the subject of this research. The scale includes 7 statements such as: “Using social networks enables me to socially interact with my friends quicker”, “Using social networks improves my social life performance”, “Using social networks gives me greater control over my social interactions” and more. The items are rated on a 5-point Likert scale from “1 - Strongly disagree” to “5 – Strongly agree”. The questionnaire reliability according to Cronbach’s alpha internal consistency test is 0.939 (Questions 9.1-9.7 in the attached questionnaire). This is higher than the average reliability (0.895) found in a meta-analysis research (King and He, 2006)

6. Questionnaire for measuring the participant’s perceived ease of use (PEOU) of the social network, using the perceived ease of use scale (Davis, 1989) adapted to the subject of this research. The scale includes 6 statements such as: “It is easy for me to remember how to perform tasks using the social network site”, “I believe that it is easy to get social networks to do what I want it to do”, “My interaction with social networks is clear and understandable” and more. The items are rated on a 5-point Likert scale from “1 - Strongly disagree” to “5 – Strongly agree”. The questionnaire reliability according to Cronbach’s alpha internal consistency test is 0.813 (Questions 9.8-9.14 in the attached questionnaire). This is lower than the average reliability (0.873) found in a meta-analysis research (King and He, 2006)

7. Questionnaire for measuring the participant’s self-expressiveness (SE) in the social network, using the self-expressiveness scale (Pedersen and Nysveen, 2003) adapted and enhanced to the subject of this research. The scale includes 8 statements such as: “I often talk to others about the social networks”, “Using the social networks is part of how I express my personality”, “Other people are often impressed by the way I use the social networks” and more. The items are rated on a 5-point Likert scale from “1 - Strongly disagree” to “5 – Strongly

agree". The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.777 (Questions 9.15-9.21 in the attached questionnaire).

8. Questionnaire for measuring the participant's culture Hofstede's power distance index (PDI), using the power distance scale (Hofstede, 1984; Soares, 2005). The scale includes 7 semantic differential items with two opposite poles of each statement. Statements included sentences such as: "Inequalities among people should be minimized" versus "Inequalities among people are both expected and desired", "Parents treat children as equals" versus "Parents teach children obedience" and more. The items are rated on a 5-point differential semantic scale. The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.559 (Questions 10.1-10.7 in the attached questionnaire).

9. Questionnaire for measuring the participant's culture Hofstede's uncertainty avoidance index (UAI), using the power distance scale (Hofstede, 1984; Soares, 2005). The scale includes 7 semantic differential items with two opposite poles of each statement. Statements included sentences such as: "Acceptance of familiar risks; fear of ambiguous situations and of unfamiliar risks" versus "comfortable in ambiguous situations and with unfamiliar risks", "There should not be more rules than is strictly necessary" versus "Emotional need for rules, even if these will never work" and more. The items are rated on a 5-point differential semantic scale, while the first two items are presented in an opposite direction to the others. The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.487 (Questions 10.8-10.14 in the attached questionnaire).

10. Questionnaire for measuring the participant's culture Hofstede's masculinity (MAS) index, using the masculinity scale (Hofstede, 1984; Soares, 2005). The scale includes 7 semantic differential items with two opposite poles of each

statement. Statements included sentences such as: “People and warm relationships are important” versus “Money and material things are important”, “Everybody is supposed to be modest” versus “Men are supposed to be assertive, ambitious and tough” and more. The items are rated on a 5-point differential semantic scale. The questionnaire reliability according to Cronbach’s alpha internal consistency test is 0.862 (Questions 10.15-10.21 in the attached questionnaire).

11. Questionnaire for measuring the participant’s culture Hofstede’s Individualism (IDV) index, using the Individualism scale (Hofstede, 1984; Soares, 2005). The scale includes 7 semantic differential items with two opposite poles of each statement. Statements included sentences such as: “Identity is based in the social network to which one belongs” versus “Identity is based in the individual”, “Harmony should always be maintained and direct confrontations avoided” versus “Speaking one’s mind is a characteristic of an honest person”, and more. The items are rated on a 5-point differential semantic scale. The questionnaire reliability according to Cronbach’s alpha internal consistency test is 0.621 (Questions 10.22-10.28 in the attached questionnaire).
12. A scale measuring the participant’s commercial sharing experience in the social network that includes 2 statements: “I shared information about product/services I either experienced or heard about in the social network” and “I shared information only about product/services that I personally used”. The items are rated on a 5-point Likert scale from “1 - Strongly disagree” to “5 – Strongly agree”. The questionnaire reliability according to Cronbach’s alpha internal consistency test is 0.84 (Questions 11.1 and 11.2 in the attached questionnaire).
13. A scale measuring the participant’s commercial sharing attitude in the social network that includes 2 statements: “I am positive towards the idea of sharing

such information in a social network" and "I'm not interested in sharing such information". The items are rated on a 5-point Likert scale from "1 - Strongly disagree" to "5 – Strongly agree", while the second item is presented in an opposite order. The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.808 (Questions 11.3 and 11.4 in the attached questionnaire). This is lower than the average reliability (0.86) found in a meta-analysis research (King and He, 2006)

14. A scale measuring the participant's willingness to read and/or share commercial information in the social network as a result of different factors. It includes 4 factors such as: "High level of network security", "High level of satisfaction with the product/service" and more. The items are rated on a 5-point Likert scale from "1 - Strongly disagree" to "5 – Strongly agree", in two columns, one for sharing information, when relevant, and one for reading information, when relevant (Question 12 in the attached questionnaire).

15. A scale measuring the commercial information value found on the social network to the participant. It includes 7 statements such as: "The information in the social network is trustworthy since it comes from people that used the product/service", "The information in the social network is trustworthy since it comes from people I know" and more. The items are rated on a 5-point Likert scale from "1 - Strongly disagree" to "5 – Strongly agree", while items 5 and 6 are presented in the opposite order. The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.761 (Question 13 in the attached questionnaire). This is lower than the average reliability (0.846) found in a meta-analysis research (King and He, 2006)

16. A scale measuring the reasons for participants to exchange information with commercial entities. It includes 6 possible reasons such as: "Getting updated information from the company", "Getting some attractive offers" and more.

The items are rated on a 5-point Likert scale from "1 - Strongly disagree" to "5 – Strongly agree" (Question 14 in the attached questionnaire).

17. A scale measuring the rewards that might lead participants to share commercial information in the social network. It includes 6 possible rewards such as: "Monetary Rewards (Money)", "Get attractive deals", "Gifts" and more. The items are rated on a 5-point Likert scale from "1 - Strongly disagree" to "5 – Strongly agree" (Question 15 in the attached questionnaire).

18. A scale measuring the industries in which participants will be more willing to share commercial information in the social network. It includes 9 possible industries such as: "Fashion", "Airlines", "Tourism" and more. The items are rated on a 7-point Likert scale from "1 - Strongly disagree" to "7 – Strongly agree" (Question 16 in the attached questionnaire).

19. A scale measuring the participants' attitude towards advertisement in the social network. It includes 7 statements such as: "I never really paid attention to it", "I fully ignore it" and more. The items are rated on a 5-point Likert scale from "1 - Strongly disagree" to "5 – Strongly agree", while the first four items are presented in the opposite order. The questionnaire reliability according to Cronbach's alpha internal consistency test is 0.611 (Question 19 in the attached questionnaire).

20. Participant's demographic questionnaire: gender, age, marital status, primary language, education level, residence country, income level, employment status (Questions 20, 21, 22, 23, 24, 25, 26 and 27 in the attached questionnaire).

21. Information about the participant's Internet usage experience and the locations in which he uses the internet (Questions 28 and 29 in the attached questionnaire).

The activity level variable was calculated as a simple average between the usage frequency and the usage time.

The independent variable, Attitude towards the Social Network (ASN), was calculated based on the general attitude of the participant towards the preferred social network scale.

The dependent variable, Reading of information (READ), was calculated as a simple average of the responses in the passive action questionnaire. Statements numbers 9, 10 were coded in an opposite order.

The mediator variable, Perceived Usefulness (PU), was calculated as a simple average of the responses in the perceived usefulness questionnaire.

The independent variable, Perceived Ease of Use (PEOU), was calculated as a simple average of the responses in the perceived ease of use questionnaire.

The independent variable, Self-Expressiveness (SE), was calculated as a simple average of the responses in the self-expressiveness questionnaire.

The independent variable, Power distance index (PDI), was calculated as a simple average of the responses in the power distance questionnaire.

The independent variable, Uncertainty avoidance index (UAI), was calculated as a simple average of the responses in the power distance questionnaire. Statements numbers 8, 9 were coded in an opposite order.

The independent variable, Masculinity (MAS) index, was calculated as a simple average of the responses in the masculinity questionnaire.

The independent variable, Individualism (IDV) index, was calculated as a simple average of the responses in the Individualism questionnaire.

The dependent variable, sharing of commercial information (SHARE), was calculated as a simple average of the responses in the participant's commercial sharing experience scale.

The mediator variable, Intention to Share commercial information (IS), was calculated as a simple average of the responses in the commercial sharing attitude scale. Statement number 4 was coded in an opposite order.

The independent variable, Attitude towards the Social Network commercial Information (ASNI), was calculated as a simple average of the responses in the commercial information value scale. Statements number 5 and 6 were coded in an opposite order.

The majority of the variables measured in this research are scale variables that are considered in many cases as variables that have no higher measuring level than the ordinal ones. While technically Likert scale items are ordered in nature, treating them as continuous variables and using them in parametric tests in common and valid in some situations, if assumptions about skewness, number of categories and others are met (Lubke & Muthen, 2004; Glass et al., 1972; Johnson & Creech, 1983; Zumbo & Zimmerman, 1993; Winship & Mare, 1984). Since all Likert scales in this research had either 5 or 7 categories, the researcher used normal theory statistics and processing procedures which are not allowed on ordinal variables.

4.1.8 Limitations of the methodology

The research was published in Facebook and although it was distributed also to some other people by the Facebook members, most of the responders were Facebook users that are relatively active, as they found the questionnaire in Facebook and decided to answer it. Most of the people that are not using Facebook

were not exposed to the research and as a result, were not included in the sample. Thus, some of the distributions of the participants' characteristics are higher than the average population. In addition, attitudes in this research were measured by scales, which has limited precision, although practiced.

4.1.9 Variables and symbols

Dependent variables

READ – Reading of information (passively)

SHARE – Sharing of commercial information (actively)

Mediator variables

PU – Perceived Usefulness

IS – Intention to Share commercial information

Independent variables

PEOU – Perceived Ease of Use

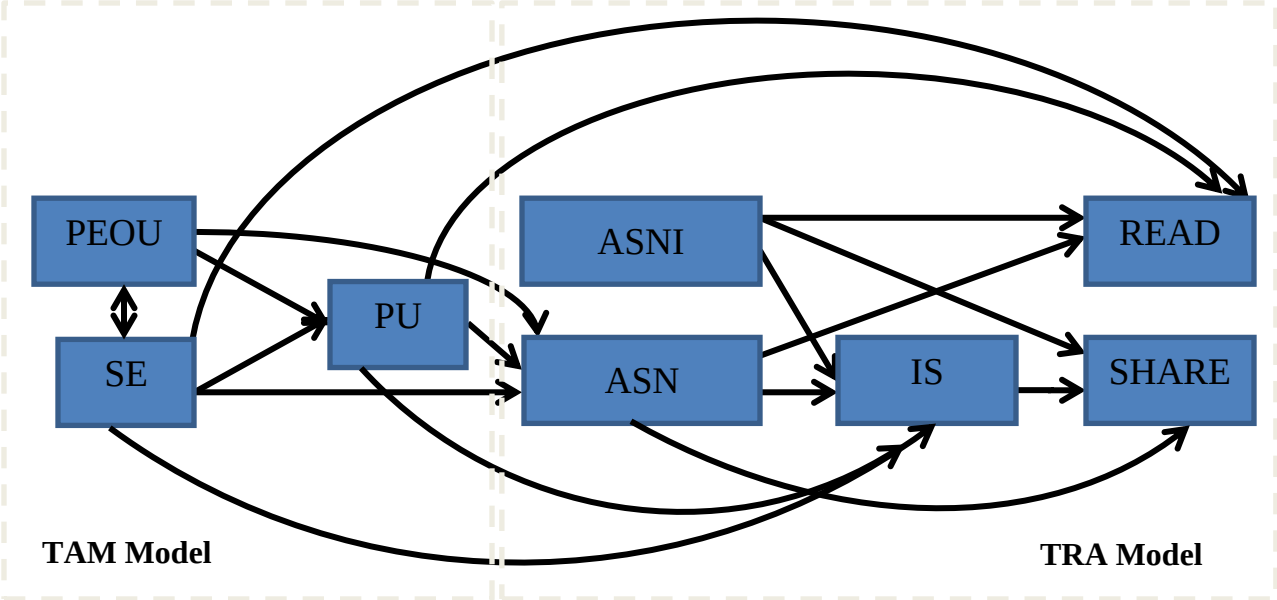
SE – Self-Expressiveness

ASNI – Attitude towards the Social Network commercial Information

ASN - Attitude towards the Social Network

Hofstede culture dimensions - Power distance index (PDI), Uncertainty avoidance index (UAI), Masculinity (MAS) index, Individualism (IDV) index

4.1.10 Research model



4.1.11 Research hypotheses

Cultural-effect hypotheses

H1: Negative correlation is expected between Hofstede's power distance index (PDI) and the number of friends in the social network

H2: Negative correlation is expected between Hofstede's masculine index (MAS) and information sharing (SHARE)

H3: Negative correlation is expected between Hofstede's masculine index (MAS) and Attitude towards the Social Network commercial Information (ASNI)

H4: Positive correlation is expected between Hofstede's uncertainty avoidance index (UAI) and information reading (READ)

H5: Positive correlation is expected between Hofstede's uncertainty avoidance index (UAI) and Attitude towards the Social Network commercial Information (ASNI)

H6: Negative correlation is expected between Hofstede's individualism index (IDV) and the perceived usefulness of the social network (PU)

Intra TAM-model (Technology Acceptance Model) hypotheses

H7: Perceived Ease of Use (PEOU) positively affects Perceived Usefulness (PU)

H8: Self-Expressiveness (SE) positively affects Perceived Usefulness (PU)

H9: Positive correlation between Perceived Ease of Use (PEOU) and Self-Expressiveness (SE)

Intra TRA-model (theory of reasoned action) hypotheses

H10: Attitude towards the Social Network (ASN) positively affects Intention to Share commercial information (IS)

H11: Attitude towards the Social Network (ASN) positively affects Reading of information (READ)

H12: Intention to Share commercial information (IS) positively affects Sharing of commercial information (SHARE)

H13: Attitude towards the Social Network commercial Information (ASNI) positively affects Intention to Share commercial information (IS)

H14: Attitude towards the Social Network commercial Information (ASNI) positively affects Reading of information (READ)

H15: Attitude towards the Social Network (ASN) positively affects Sharing of commercial information (SHARE)

H16: Attitude towards the Social Network commercial Information (ASNI) positively affects Sharing of commercial information (SHARE)

Cross TMA-TRA models hypotheses

H17: Perceived Ease of Use (PEOU) positively affects Attitude towards the Social Network (ASN)

H18: Self-Expressiveness (SE) positively affects Reading of information (READ)

H19: Self-Expressiveness (SE) positively affects Intention to Share commercial information (IS)

H20: Perceived Usefulness (PU) positively affects Reading of information (READ)

H21: Perceived Usefulness (PU) positively affects Intention to Share commercial information (IS)

H22: Self Expressiveness (SE) positively affects Attitude towards the Social Network (ASN)

H23: Perceived Usefulness (PU) positively affects Attitude towards the Social Network (ASN)

The TAM model suggests that there are three main factors: perceived ease of use, perceived usefulness and self-expressiveness, which are influencing one's attitude

toward a certain technology, his intention to use it and the actual use. In this research the researcher used these 3 factors to predict the attitude towards the social network, the intention to share commercial information and the actual sharing of commercial information. In addition there was another attitude that was added to the model, and this is the attitude towards the commercial information gain from the social network. There was also another activity that was added to the model, and this is the reading of information in the network. As reading of information in the social network an "automatic" activity as one logins into the network, there was no "intention to read" variable added to the model, and the attitude parameters were acted as direct predictors of this activity.

Hypotheses 7-23 in this research are based on the relations between the variables of the adapted TAM model. In order to explore partial effects of the different variables, no single paths were assumed, and there were additional relations between the variables that were added for the sake of testing all the possible relations between the model variables. Only relations that made no logical sense were eliminated from the model.

4.2 The research findings

4.2.1 Sample Composition – General Characteristics

There were a total of 156 participants in the sample. 6 participants said that they are not registered to any social network, and they were taken off the sample. Out of the other 150 participants there were 90 female (60%) and 58 male (38.7%). 2 participants (1.3%) had missing gender information.

Table 4.2.1 shows the mean, standard deviation, minimum and maximum values of the participants' age.

Table 4.2.1 - mean, standard deviation, minimum and maximum values of the participants' age

	Mean	Standard Deviation	Minimum	Maximum
Participants' Age	32.36	7.341	18	56

As shown in the table, all participants where older than 18 years old, although Facebook formally allows children that are older than 13 years old to register.

Table 4.2.2 shows the number of participants and percentage (out of the valid responses) in each marital status. There were 11 participants with no valid marital status.

Table 4.2.2 - number of participants and percentage (out of the valid responses) in each marital status

Marital Status	Number of participants	Valid Percent
Single	75	51.7

Married	58	40.0
Divorced	11	7.6
Widowed	1	.7

As shown in the table, more than half of the participants were single followed by 40% that are married.

Table 4.2.3 shows the number of participants and percentage (out of the valid responses) in each education level. There were 5 participants with no valid education level information.

Table 4.2.3 - number of participants and percentage (out of the valid responses) in each education level

Education Level	Number of participants	Valid Percent
High School or equivalent	16	11.0
Vocational/Technical school or college	6	4.2
Bachelor's degree	88	60.7
Master's degree	30	20.7
Professional degrees, Doctoral degree or others	5	3.5

As shown in the table, the vast majority of the sample population (60.7%) holds a Bachelor’s degree and 20.7% holds a Master’s degree. There were 5 participants with no valid education level information.

Table 4.2.4 shows the number of participants and percentage (out of the valid responses) in each income level. There were 24 participants with no valid income level.

Table 4.2.4 - number of participants and percentage (out of the valid responses) in each income level

Income Level	Number of participants	Valid Percent
Much below average	19	15.1
Below average	18	14.3
Average	36	28.6
Higher average	51	40.5
Much higher average	2	1.6

As shown in the table, there are 28.6% of the sample population with average income and 40.5% with higher than average income. From the other side there are 29.4% that are either below average or much below the average income level.

Table 4.2.5 shows the number of participants and percentage (out of the valid responses) in each living location. There were 2 participants with no valid living location.

Table 4.2.5 - number of participants and percentage (out of the valid responses) in each living location

Living Location	Number of participants	Valid Percent

Urban	109	73.6
Suburban	17	11.5
Rural	22	14.9

As shown in the table, the vast majority of the sample population (73.6%) lives in an urban location.

Table 4.2.6 shows the number of participants and percentage (out of the valid responses) in each employment status. There were 15 participants with no valid employment status.

Table 4.2.6 - number of participants and percentage (out of the valid responses) in each employment status

Employment Status	Number of participants	Valid Percent
Self employed	10	7.4
Work for a company	92	68.1
Student	22	16.3
No permanent work	11	8.1

As shown in the table, the vast majority of the sample population (68.1%) works for a company, following by 16.3% that are students.

4.2.2 Sample Composition – Internet and Social network usage

The vast majority of the sample population is using the internet for more than 7 years (87.2%). The most popular location for surfing the web is home. 87.1% of the sample population rated their home surfing frequency as 4 or 5 on a scale of 1 to 5, 5 being high frequency and 1 being low frequency. Work was the 2nd popular surfing location with 62.7% of the sample population that rated 4 or 5 their surfing frequency at work on the same scale.

As for the usage of social networks, 92.3% of the participants rated Facebook as their preferred social network, following by 6.3% of the participants that rated Twitter as their preferred social network.

Table 4.2.7 shows the length of experience of the participants with their preferred social network. It shows the number of participants and percentage in each of the experience levels.

Table 4.2.7 - number of participants and percentage in each social network experience level

Social Network Experience	Number of participants	Valid Percent
Up to 1 year	18	12.0
1 - 2 years	51	34.0
More than 2 years	81	54.0

As shown in the table, the vast majority of the sample population (54%) uses their preferred social network for more than 2 years, with additional 34% that use it for more than a year.

Table 4.2.8 shows the approximate number of friends in the preferred social network each participant has. It shows the number of participants and percentage in each category of their social network friends' group size. There was 1 participant with no valid information.

Table 4.2.8 - number of participants and percentage in each category of their social network friends' group size

Number of friends	Number of participants	Valid Percent
Up to 10 friends	3	2.0
11-50 friends	17	11.4
51-150 friends	44	29.5
151-399 friends	63	42.3
More than 400 friends	22	14.8

As shown in the table, the majority of the sample population (42.3%) has between 151-399 friends, which is much higher than the Facebook's global statistics of 130 friends in average (Facebook Statistics, 2011). Another 29.5% of the sample population had 51-150 friends. In addition, there were 14.8% of the sample population of very large friends groups of 400 friends and more.

Table 4.2.9 shows the frequency in which the sample participants access their preferred social network. It shows the number of participants and percentage in each access frequency level. There was 1 participant with no valid information.

Table 4.2.9 - number of participants and percentage in each access frequency level.

Access frequency	Number of participants	Valid Percent
Less than 1 month	3	2.0
1-4 times/month	18	12.1
Few times/week	28	18.8
Once a day	30	20.1
Few times/day	70	47.0

As shown in the table, the majority of the sample population (47%) accesses their preferred social network few times a day, with additional 20.1% that access it once a day. This is even higher than the statistics that says that more than 50% of the active users use Facebook in any given day (Facebook Statistics, 2011). Only 14.1% of the sample population uses their preferred social network once a week or less.

Table 4.2.10 shows the average time each of the sample participants spends in his preferred social network every week. It shows the number of participants and percentage in each access time level. There was 1 participant with no valid information.

Table 4.2.10 - number of participants and percentage in each access time level.

Access time	Number of participants	Valid Percent
Less 10 min	19	12.8

10-30 min	37	24.8
30-60 min	20	13.4
1-3 hours	26	17.4
3-7 hours	24	16.1
7-14 hours	14	9.4
More 14 hours	9	6.0

As shown in the table, the majority of the sample population (24.8%) accesses their preferred social network for 10-30 minutes a week (which is around 1.5-4 minutes a day). Additional 17.4% spend 1 to 3 hours a week (around 9-25 minutes s a day) and additional 16.1% spend 3-7 hours a week (around 25 min to 1 hour a day). Facebook Statistics (2011) shows that the average user spend around 31 minutes a day, which is very similar to the calculated average of the sample population (30.89 minutes a day).

Table 4.2.11 shows the weekly time spent on the social network in each of the usage frequencies. It shows the number of participants (out of 149 participants, since there was 1 participant with no valid information) in each of the access time levels and in each of the access frequency levels.

Table 4.2.11 - number of participants and percentage in each access time level.

		Access time							
		Less 10 min	**10-30 min**	**30-60 min**	**1-3 hours**	**3-7 hours**	**7-14 hours**	**More 14 hours**	Total
Access	**Less 1 month**	2	1	0	0	0	0	0	3

frequency	**1-4 times/month**	8	9	1	0	0	0	0	18
	Few times/week	5	15	6	2	0	0	0	28
	Once a day	3	8	8	8	3	0	0	30
	Few times/day	1	4	5	16	21	14	9	70
Total		19	37	20	26	24	14	9	149

As expected, there is a high significant correlation ($p < 0.01$) between the access frequency and the access time (0.725) which means that the users that access their social network more frequently, also spends more time on the network on average. Still there are different types of users that can be identified in the table, for instance among the frequent users. Those that access the network few times a day but only spends few minutes there, and those that access it few times a day but also spends a lot of time in each of the times.

Table 4.2.12 shows the number of friends users have in each activity level. The activity level variable was calculated as a simple average between the usage frequency and the usage time. The table shows the number of participants (out of 148 participants, since there were 2 participants with no valid information) in each of the activity levels and in each of the friends' levels.

Table 4.2.12 - number of participants in each of the activity levels and in each of the friends' levels.

	Friends					
Activity Level	**Up to 10 friends**	**11-50 friends**	**51-150 friends**	**151-399 friends**	**More than 400 friends**	Total

1.0	1	1	0	0	0	2
1.5	1	3	3	2	0	9
2.0	0	4	5	3	1	13
2.5	1	1	10	6	1	19
3.0	0	4	6	4	1	15
3.5	0	2	3	6	3	14
4.0	0	0	2	10	1	13
4.5	0	1	6	8	4	19
5.0	0	0	4	14	3	21
5.5	0	0	3	7	4	14
6.0	0	1	1	3	4	9
Total	3	17	43	63	22	148

As expected, there is a medium significant correlation ($p < 0.01$) between the activity level and the number of friends (0.475) which means the active users have more friends in their social network, and vice versa. Still there are different types of users that can be identified in the table, for instance among the average friends group (51-150 friends). There are 24 users in this group that are not that active (activity level equal or below 3) and 19 users that are very active (activity levels higher than 3). The same phenomenon can be identified in the other friends' levels, as well.

4.2.3 Drivers for commercial information sharing

Table 4.2.13 shows the possible influence of different factors on the willingness of the participants to read and share more commercial information in their social

network. It shows the average score and standard deviation on a 5-point Likert scale.

Table 4.2.13 - average score and standard deviation given to the influence of different factors on the willingness to read and share commercial information in the social network

Factor	**Read information**		**Share information**	
	Average	Standard Deviation	Average	Standard Deviation
High Level security	3.57	1.223	3.59	1.322
Product satisfaction			3.72	1.189
Rewards	3.48	1.322	3.37	1.297
Information relevance	4.08	0.93		

As shown in the table, all four factors, that were identified in a preliminary research, were higher than average in their influence on the willingness of the participants to both read and share information. Surprisingly, the most influencing factor is the information relevance (4.08) and the least influencing factor is rewards (3.43 in average). The most influencing factor to sharing commercial information is satisfaction with the product or service (3.72), following with high level security (3.59).

Although rewards were not rated very high as a factor that can influence commercial information sharing, table 4.2.14 shows the possible influence of different rewards on the willingness of the participants to share commercial information in their social network. It shows the average score and standard deviation on a 5-point Likert scale.

Table 4.2.14 - average score and standard deviation given to the influence of different rewards on the willingness to share commercial information in the social network

Type of reward	Average	Standard Deviation
Monetary rewards (money)	3.71	1.41
Attractive deals	3.53	1.35
Gifts	3.64	1.358
Entertainment content (e.g. humor)	2.52	1.273
Information (e.g. comparison tables)	2.90	1.286
Personalized content	3.18	1.377

As expected, money (3.71), gifts (3.64) and attractive deals (3.53) were all on the top of the participants list as the best rewards they ask for, in return for sharing commercial information with others in their social network. Both entertainment content (2.52) and information in general (2.90) were rated below the average. Personalized content (3.18) was rated above average, but was still lower in its effect compared to the "real" rewards.

Table 4.2.15 shows the industries in which participants are more willing to share commercial information with their friends in the social network. It shows the average score and standard deviation on a 7-point Likert scale.

Table 4.2.15 - average score and standard deviation given to the willingness to share commercial information in the social network for products and services in each industry

Industry	Average	Standard Deviation
Fashion	3.74	1.974
Airlines	3.76	1.947
Tourism	4.24	1.853
Electronics	4.16	1.913
Restaurants	4.70	1.865
Websites	4.30	1.883
Food	4.03	2.012
Books	4.47	1.879
Films	4.72	1.784

The table shows medium levels of willingness to share commercial information. The average (4.24) equals to 3.16 on a 5-point Likert scale, which is just a little bit above the middle answer. The industries in which participants will be more willing to share commercial information are films (4.72), restaurants (4.70) and books (4.47). Fashion (3.74) and airlines (3.76) were rated below the middle answer in the scale.

In general, most participants (63.3%) rate the information that they get on the social network as similar in its value to the information they get from people they trust outside the social network. Additional 18.7% of the participants see it as more valuable than the other sources. This shows that word of mouth information in the social network has very high credibility.

Table 4.2.16 shows the possible reasons for exchanging information with commercial entities, such as companies and brands, within the social network. It shows the average score and standard deviation on a 5-point Likert scale for each reason.

Table 4.2.16 - average score and standard deviation given to the possible reasons for exchanging information with commercial entities within the social network

Reason for exchanging information	Average	Standard Deviation
Updated information	2.75	1.311
Attractive offers	3.16	1.313
Answers to questions	3.42	1.242
Direct contact	3.17	1.331

As shown in the table, aside from the updated information, all other three reasons that were identified in a preliminary research were rated higher than the average. The most influencing reason is getting answers to questions (3.42) and the second reason is direct contact with the company (3.17). Attractive offers were only rated third (3.16) as a reason for direct contact with companies in the social network. In two other related questions, participants rated below the average (2.94 and 2.65) statements saying that they don't exchange information with commercial entities in the social network, and that they see no value in it.

Table 4.2.17 shows participants attitude towards commercial advertisement in the social network. It shows the average score and standard deviation on a 5-point Likert scale given to different attitudes regarding advertisement.

Table 4.2.17 - average score and standard deviation given to different attitude statements regarding advertisement within the social network

Attitude regarding advertisement	Average	Standard Deviation
I never really paid attention to it	3.22	1.269

I fully ignore it	3.26	1.335
It makes me less willing to use this network	2.68	1.266
It's very boring	3.19	1.172
It's a necessary evil for funding the social network	3.19	1.219
It adds value to my use if the network	2.01	1.017
If done correctly, it can be very positive	3.19	1.189

The average score of the advertisement attitude index is 2.918 (standard deviation of 0.5142) which is below the average answer. As shown in the table, the majority of the participants either ignores advertisement (3.26), don't pay attention to it (3.22) or think it's boring (3.19), although they see little damage in advertisement to their willingness to use the social network (2.68). On the positive side, there is low perceived value of advertisement (2.01) but participants believe it's a necessary evil (3.19) and believe is can be positive, if done correctly (3.19).

4.2.4 Hofstede's cultural dimensions

Table 4.2.18 shows the Hofstede dimensions results captured in this research, based on what participants perceive as their cultural characteristics. Participants were guided to estimate their culture's characteristics, even if they personally don't agree with it. The results show the average score and standard deviation on a 5-point Likert scale, as well as the converted score on a 100-point scale, for comparison purposes with the Hofstede's Israeli published results, that also appear in the table.

Table 4.2.18 - average score and standard deviation of the four Hofstede's dimension indexes, the converted score to a 100-point scale and the Hofstede's published score for Israel

Hofstede's dimension	**Average**	**Standard Deviation**	**100-point scale score**	**Hofstede's Israel results**
Power distance (PDI)	3.131	0.61277	53.28	13
Uncertainty avoidance (UAI)	3.0446	0.53308	51.12	81
Masculinity (MAS)	3.2036	0.91289	55.09	47
Individualism (IDV)	3.5949	0.57474	64.87	54

As shown in the table, there are major differences between the measured results in this research and the published results in the Hofstede's website (Hofstede website, 2011). The biggest differences appear in the power distance (PDI) index and in the uncertainty avoidance (UAI) index. The large different in these two variables can be explained by several possible reasons:

1) These variables have both extreme results (low in the case of power distance and high in the case of uncertainty avoidance) based on Hofstede's figures, and it might be possible that participants of the culture prefer to see themselves more average on these variables, as well, as they are on the other two variable.
2) The limited population used for the measurement of the cultural variables can cause larger discrepancies.

3) Both power distance and uncertainty avoidance might have negative interpretation in their extreme values. As a result it might be possible that when asked, participants preferred to positively evaluate their own culture on both of these variables.

4.2.5 Model analysis results

There were 5 participants out of the 150 participants in this research (registered in a social network) that did not have valid scores in all the model variables. These 5 participants were not included in the theoretical model calculations.

As mentioned above, the variables of the model were:

ASN - Attitude towards the Social Network

PU – Perceived Usefulness

PEOU – Perceived Ease of Use

SE – Self-Expressiveness

READ – Reading of information (passively)

ASNI – Attitude towards the Social Network commercial Information

SHARE – Sharing of commercial information (actively)

IS – Intention to Share commercial information

Table 4.2.19 displays the averages and standard deviations of the model's variables.

Table 4.2.19 - averages and standard deviations of the model's variables

Variable	Average	Standard Deviation
ASN	3.88	0.821
PU	3.2637	1.01547
PEOU	3.7705	0.69205
SE	3.0228	0.73190
READ	3.7501	0.69675
ASNI	2.7677	0.78758
SHARE	2.4000	1.28236
IS	3.3828	1.23746

Table 4.2.20 shows the inter correlations between the 8 variables of the model and their significance.

Table 4.2.20 – Inter correlations between the variables of the model and their significance

	ASN	**PU**	**PEOU**	**SE**	**READ**	**ASNI**	**SHARE**	**IS**
ASN	1	.397**	.353**	0.448	.351**	.290**	0.282	.253**
PU	.397**	1	.386**	.650**	0.658	.263**	.205**	0.113
PEOU	.353**	.386**	1	.490**	.390**	0.228	.235**	.218**
SE	.448**	.650**	.490**	1**	.638**	.422**	.369**	.203**

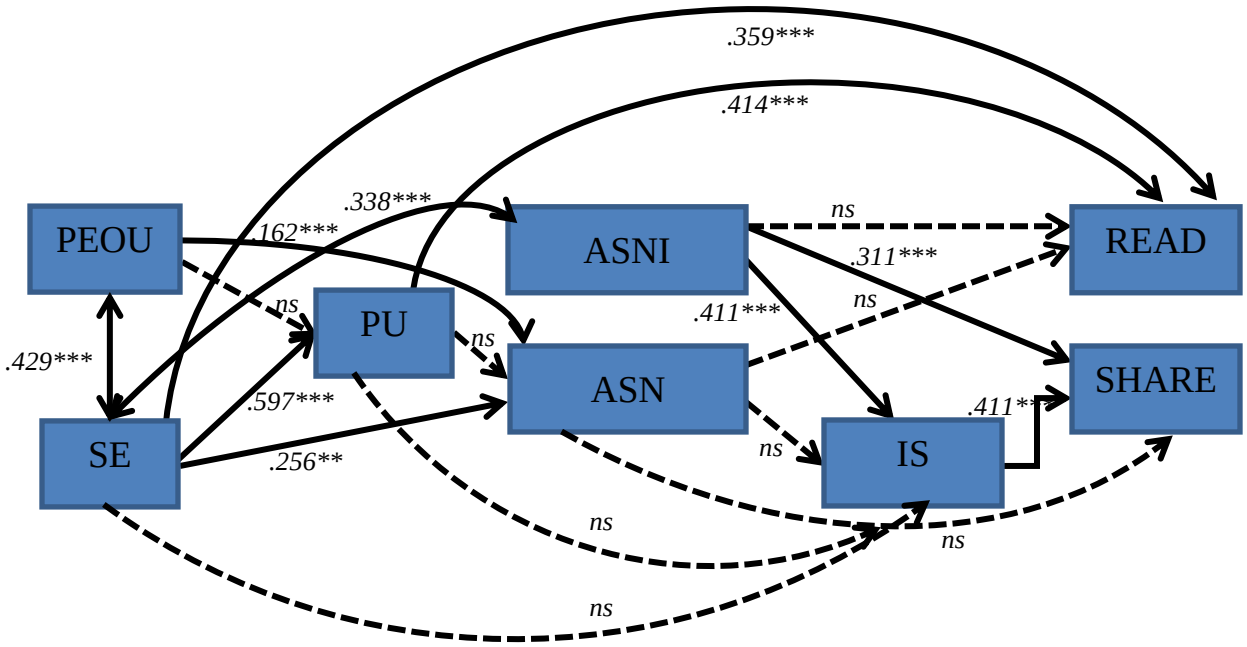
READ	.351**	.658**	.390**	.638**	1**	.245**	.275**	.191**
ASNI	.290**	.263**	.228**	.422**	.245**	1**	.512**	.437**
SHARE	.282**	.205*	.235**	.369**	.275*	.512**	1**	.567*
IS	.253**	0.113	.218**	.203**	0.191	.437**	.567**	1

*** Correlation is significant at the 0.01 level (2-tailed).*
** Correlation is significant at the 0.05 level (2-tailed).*

The proposed theoretical research model was tested using the AMOS Structural Equation Modeling (SEM) software, version 19.0. Note that this model is somewhat different than the one presented in chapter 4.1.10. The modification that is introduced is a correlation between the SE (Self-Expressiveness) variable and the ASNI (Attitude towards the Social Network commercial Information) variable (r= 0.422, p < .01). This modification was suggested by the modification command of AMOS 19 so as to improve a somewhat inadequate model fit ($\chi^2_{[11]}$ = 41.074, p<.01, χ^2/df =3.734, NFI = 0.901, CFI = 0.922, RMSEA = 0.138). With this modification, however, the CFA model fit the data well ($\chi^2_{[10]}$ = 20.395, p<.05, χ^2/df =2.04, NFI = 0.951, CFI = 0.973, RMSEA = 0.085). Since the sample was relatively large, chi square was significant, despite other indices pointing to adequate model fit.

Figure 4.2.1 depicts the structural model of this study.

Figure 4.2.1 - structural model



Note: *: $p \leq .001$, **: $p \leq .01$, ***: $p \leq .05$. ns: Not Significant

Table 4.2.21 shows the different model standardized regression weights (β values) and their significance (p).

Table 4.2.21 – Standardized model regression weights (β values) and their significance

1st Variable	**2nd Variable**	B	**P**
PEU	PU	.090	.204
SE	**PU**	**.597**	*******

PU	ASN	.163	.087
SE	**ASN**	**.256**	**.010**
PEU	**ASN**	**.162**	**.047**
ASNI	**IS**	**.411**	*******
ASN	IS	.159	.058
PU	IS	-.054	.579
SE	IS	-.004	.966
ASNI	READ	-.028	.661
ASN	READ	.030	.651
ASN	SHARE	.090	.171
IS	**SHARE**	**.411**	*******
SE	**READ**	**.359**	*******
PU	**READ**	**.414**	*******
ASNI	**SHARE**	**.311**	*******
SE	**PEU**	**.429**	*******
ASNI	**SE**	**.338**	*******

As shown in the table, there are 10 out of the 18 relationships (marked in bold letters) in the standardized model that are significant ($p<.05$).

4.2.6 Examination of the research hypotheses

Cultural-effect hypotheses

H1: Negative correlation is expected between Hofstede's power distance index (PDI) and the number of friends in the social network

A significant positive correlation of 0.211 ($p<0.05$) between Hofstede's power distance index (PDI) and the number of friends in the social network was found. Thus, Hypothesis H1 was **not supported**.

H2: Negative correlation is expected between Hofstede's masculine index (MAS) and information sharing (SHARE)

A significant negative correlation of -0.168 ($p<0.05$) between Hofstede's masculine index (MAS) and the information sharing (SHARE) in the social network was found. Thus, Hypothesis H2 was **supported**.

H3: Negative correlation is expected between Hofstede's masculine index (MAS) and Attitude towards the Social Network commercial Information (ASNI)

A significant negative correlation of -0.192 ($p<0.05$) between Hofstede's masculine index (MAS) and the attitude towards the social network commercial information (ASNI) was found. Thus, Hypothesis H3 was **supported**.

H4: Positive correlation is expected between Hofstede's uncertainty avoidance index (UAI) and information reading (READ)

No significant correlation ($p<.05$) was found between Hofstede's uncertainty avoidance index (UAI) and information reading (READ). Thus, Hypothesis H4 was **not supported**.

H5: Positive correlation is expected between Hofstede's uncertainty avoidance index (UAI) and Attitude towards the Social Network commercial Information (ASNI)

A significant negative correlation of -0.190 ($p<0.05$) between Hofstede's uncertainty avoidance index (UAI) and the attitude towards the social network commercial information (ASNI) was found. Thus, Hypothesis H5 was **not supported**.

H6: Negative correlation is expected between Hofstede's individualism index (IDV) and the perceived usefulness of the social network (PU)

A significant negative correlation of -0.180 ($p<0.05$) between Hofstede's individualism index (IDV) and the perceived usefulness (PU) of the social network was found. Thus, Hypothesis H6 was **supported**.

Intra TAM-model (Technology Acceptance Model) hypotheses

H7: Perceived Ease of Use (PEOU) positively affects Perceived Usefulness (PU)

The findings of table number 4.2.21 indicate that there is no significant effect of the Perceived Ease of Use (PEOU) on the Perceived Usefulness (PU). Thus, hypothesis H7 was **not supported**.

H8: Self-Expressiveness (SE) positively affects Perceived Usefulness (PU)

The findings of table number 4.2.21 indicate that there is a significant positive effect of 0.597 ($p<0.05$) of Self-Expressiveness (SE) on Perceived Usefulness (PU). Thus, hypothesis H8 was **supported**.

H9: Positive correlation between Perceived Ease of Use (PEOU) and Self-Expressiveness (SE)

The findings of table number 4.2.21 indicate that there is a significant positive correlation of 0.429 ($p<0.05$) of the Perceived Ease of Use (PEOU) and Self-Expressiveness (SE). Thus, hypothesis H9 was **supported**.

Intra TRA-model (Theory of Reasoned Action) hypotheses

H10: Attitude towards the Social Network (ASN) positively affects Intention to Share commercial information (IS)

The findings of table number 4.2.21 indicate that there is no significant effect of the Attitude towards the Social Network (ASN) on the Intention to Share commercial information (IS). Thus, hypothesis H10 was **not supported**.

H11: Attitude towards the Social Network (ASN) positively affects Reading of information (READ)

The findings of table number 4.2.21 indicate that there is no significant effect of the Attitude towards the Social Network (ASN) on the Reading of information (READ). Thus, hypothesis H11 was **not supported**.

H12: Intention to Share commercial information (IS) positively affects Sharing of commercial information (SHARE)

The findings of table number 4.2.21 indicate that there is a significant positive effect of 0.411 ($p<0.05$) of the Intention to Share commercial information (IS) on the actual Sharing of commercial information (SHARE). Thus, hypothesis H12 was **supported**.

H13: Attitude towards the Social Network commercial Information (ASNI) positively affects Intention to Share commercial information (IS)

The findings of table number 4.2.21 indicate that there is a significant positive effect of 0.411 ($p<0.05$) of the Attitude towards the Social Network commercial Information (ASNI) on the Intention to Share commercial information (IS). Thus, hypothesis H13 was **supported**.

H14: Attitude towards the Social Network commercial Information (ASNI) positively affects Reading of information (READ)

The findings of table number 4.2.21 indicate that there is no significant effect of the Attitude towards the Social Network commercial Information (ASNI) on the Reading of information (READ). Thus, hypothesis H14 was **not supported**.

H15: Attitude towards the Social Network (ASN) positively affects Sharing of commercial information (SHARE)

The findings of table number 4.2.21 indicate that there is no significant effect of the Attitude towards the Social Network (ASN) on Sharing of commercial information (SHARE). Thus, hypothesis H15 was **not supported**.

H16: Attitude towards the Social Network commercial Information (ASNI) positively affects Sharing of commercial information (SHARE)

The findings of table number 4.2.21 indicate that there is a significant positive effect of 0.311 ($p<0.05$) of Attitude towards the Social Network commercial Information (ASNI) on Sharing of commercial information (SHARE). Thus, hypothesis H16 was **supported**.

Cross TAM-TRA models hypotheses

H17: Perceived Ease of Use (PEOU) positively affects Attitude towards the Social Network (ASN)

The findings of table number 4.2.21 indicate that there is a significant positive effect of 0.162 ($p<0.05$) of the Perceived Ease of Use (PEOU) on the Attitude towards the Social Network (ASN). Thus, hypothesis H17 was **supported**.

H18: Self-Expressiveness (SE) positively affects Reading of information (READ)

The findings of table number 4.2.21 indicate that there is a significant positive effect of 0.359 ($p<0.05$) of Self-Expressiveness (SE) on the Reading of information (READ). Thus, hypothesis H18 was **supported**.

H19: Self-Expressiveness (SE) positively affects Intention to Share commercial information (IS)

The findings of table number 4.2.21 indicate that there is no significant effect of Self-Expressiveness (SE) on the Intention to Share commercial information (IS). Thus, hypothesis H19 was **not supported**.

H20: Perceived Usefulness (PU) positively affects Reading of information (READ)

The findings of table number 4.2.21 indicate that there is a significant positive effect of 0.414 ($p<0.05$) of Perceived Usefulness (PU) on the Reading of information (READ). Thus, hypothesis H20 was **supported**.

H21: Perceived Usefulness (PU) positively affects Intention to Share commercial information (IS)

The findings of table number 4.2.21 indicate that there is no significant effect of Perceived Usefulness (PU) on the Intention to Share commercial information (IS). Thus, hypothesis H21 was **not supported**.

H22: Self Expressiveness (SE) positively affects Attitude towards the Social Network (ASN)

The findings of table number 4.2.21 indicate that there is a significant positive effect of 0.256 ($p<0.05$) of Self-Expressiveness (SE) on the Attitude towards the Social Network (ASN). Thus, hypothesis H22 was **supported**.

H23: Perceived Usefulness (PU) positively affects Attitude towards the Social Network (ASN)

The findings of table number 4.2.21 indicate that there is no significant effect of the Perceived Usefulness (PU) on the Attitude towards the Social Network (ASN). Thus, hypothesis H23 was **not supported**.

In addition to these hypothesizes, there was one hypothesis that was suggested by the Amos 19 software. The findings of table number 4.2.21 indicate that there is a significant positive correlation of 0.338 ($p<0.05$) between the Self-Expressiveness (SE) variable and the Attitude towards the Social Network commercial Information (ASNI). Thus, this suggested hypothesis was supported.

4.3 Discussion

4.3.1 The model

This research tried to investigate the main factors that expedite commercial word of mouth in Facebook, as a way of increasing the value social networks can provide to commercial entities, rather than using the traditional push strategies, that are less effective in the social networks world.

The Technology Acceptance Model (TAM), that is based on the theory of reasoned action (TRA) model of Ajzen and Fishbein's (Ajzen and Fishbein, 1980) was used in this research, with an adaptation to the Facebook commercial information sharing process.

In this research model there are three main factors that are influencing the attitude towards the social network, the attitude towards the commercial information in the social network, the intention to share information, the information sharing activity and the information reading activity. The three factors are perceived ease of use, perceived usefulness and self-expressiveness.

Perceived ease-of-use, the first factor, was predicted to affect the perceived usefulness and the attitude toward the social network. In addition, it was predicted to have a correlation with self-expressiveness. As shown in figure 4.2.1, perceived ease-of-use is significantly influencing the attitude towards the social network, but has no significance influence on the perceived usefulness. In addition there is a strong significant bi-directional correlation with self-expressiveness.

The significant effect of perceived ease of use on the attitude towards the social network was supported in this research, as in many other researches testing the TAM model (Adams, Nelson and Todd, 1992; Pedersen and Nysveen, 2003 and others).

The strong significant correlation of perceived ease of use and self-expressiveness can be explained by the fact that an ability to use the social network enable users to experience self-expressiveness, and difficulties in using the social network will prevent this option. Correlation between these variables was found in other researches in the social network already (Lee et al., 2011).

The non-significant effect of the perceived ease of use on perceived usefulness can be explained by the fact that Facebook is a very easy-to-use application. Ease-of-use was scored as one of the highest with an average of 3.7705 on a 5-point scale and a relatively small standard deviation of 0.69205 (as indicated in table 4.2.19).

Perceived usefulness, the second factor, was predicted to affect the attitude toward the social network, the information sharing intention and the reading activity. As shown in figure 4.2.1, perceived usefulness is significantly influencing the reading activity, but has no significance influence on the attitude toward the social network and the sharing intention. The significant effect of perceived usefulness on the reading activity, which is the passive activity each user is doing when getting into Facebook, was found in the Davis's early research (1993), although in this case this makes even more sense, as there is no real behavior intention in the passive reading action, the same way it appears in the sharing activity.

The effect of perceived usefulness on the attitude towards the social network was non-significant but was not far from being significant (p=0.087). The other factors that influenced the attitude towards the social network seem to have more significant effect on the attitude.

The non-significant effect of perceived usefulness on the sharing intentions shows that in social networks even if users perceive the network as useful for them, they might use it for passive reading purposes but it does not affect the active commercial information sharing. Similar results were also found in other researches in technologies usage such as internet banking (Chen, 2011).

The effect of perceived usefulness and perceived ease of use was tested in many researches and there were contradicting results. For instance, Davis (1993) found that usefulness had stronger influence compared to ease of use, but Adams, Nelson and Todd (1992) from the other end found that ease of use is more influential than usefulness. Agarwal and Prasad (1999) showed roughly equivalent influence of both factors on behavioral intentions.

In this research, both factors had small influence on the attitude towards the social network, and the effect of perceived usefulness was not even significant. From the other end, perceived usefulness had a strong influence on the information reading. One explanation for the small effect of ease of use on the attitude towards the social network might be the explanation suggested by Gefen and Straub (2000) on the influence of ease of use in electronic commerce. According to this explanation ease of use will have stronger effect over the attitude towards an E-commerce website, when the website itself is directly associated with intrinsic characteristics of the product or service. In Facebook, the commercial information published by the users about a certain product or service is not connected to the Facebook social network and to its characteristics, which can probably explain why ease of use is not a major predictor of attitude, behavior intention and the behavior itself.

Self-expressiveness, the third factor, was predicted to affect perceived usefulness, the attitude toward the social network, the information sharing intention and the reading activity. In addition, it was predicted to have a correlation with perceived ease-of-use, as discussed already, and with the attitude towards the social network commercial information, as suggested by the modification command of AMOS 19. As shown in figure 4.2.1, self-expressiveness is significantly influencing perceived usefulness, the attitude toward the social network and the reading activity, but has no significance influence on the information sharing intention. In addition there is

a strong significant bi-directional correlation with perceived ease-of-use and with the attitude towards the social network commercial information.

The effect of self-expressiveness in technology-mediated communication was tested in many recent researches, and was found to be a significant independent construct that is influencing technology usage (Bozionelos, 2001). The effect of self-expressiveness on the perceived usefulness was also supported in many researches (Pedersen and Nysveen, 2003; Pedersen, Nysveen and Thorbjørnsen, 2003).

The effect of self-expressiveness on the attitude toward the action, on the other end, had contradicting results. In some cases this direct effect was found to be insignificant (Pedersen and Nysveen, 2003) but in other cases it was found to be significant (Pedersen, Nysveen and Thorbjørnsen, 2003). The strong significant effect in this research leads us to understand the importance of self-expressiveness in a social environment like Facebook, to the degree that the attitude towards the whole Facebook network is strongly influenced by it.

The direct significant effect of self-expressiveness on the activity itself is usually not tested, and in most cases the direct effect that is tested is the intention to act. As indicated before, in the model tested in this research the intention to the passive action of information reading was eliminated, as it is almost an automatic action when getting into the network, and there is no intention needed there. As a result, the direct significant effect of self-expressiveness on the reading behavior is not surprising, as it can be treated as an intention to act, in more active actions, effect that was found in many researches before (Pedersen and Nysveen, 2003; Pedersen, Nysveen and Thorbjørnsen, 2003).

The non-significant influence of self-expressiveness on the commercial information sharing intention can be explained by the fact that sharing of commercial information is something Facebook users are willing to do in “return”

for some benefits that will be discussed later. The actual self-expressiveness might influence the willingness to share private information, but is not enough for sharing commercial information with others.

The strong significant correlation of self-expressiveness and perceived ease of use was explained earlier already.

The strong significant bi-directional correlation of self-expressiveness and the attitude towards the social network commercial information is somehow surprising. Still, it might be explained by the fact that people that feel the social network is a positive place for sharing information and express their selves (high self-expressiveness levels) are positive regarding sharing all types of information, including commercial information.

As one can see, self-expressiveness is one of the major significant effecting factors in this model. This is not a surprise as Facebook and the other social networks become an infrastructure for people to express their selves, and this is one of the main benefits the network provides (Livingstone, 2008). This is specifically important for the users as Facebook is becoming a replacement platform for the friendship infrastructure for many people (Kraut et al., 1998). In Chapter 3.2 of this research the researcher looked into the characteristics of the Facebook users and specifically into the value they users get from Facebook as a social infrastructure.

Attitude towards the social network, the forth variable in this research, was predicted to be affected by the perceived ease-of-use, perceived usefulness and self-expressiveness and affect the information sharing intention and the reading activity and the sharing of commercial information.

As already discussed both the perceived ease-of-use and self-expressiveness were significantly affecting attitude towards the social network and perceived usefulness

was close to have significant effect, as well. Self-expressiveness had the highest effect out of these three factors (0.256).

On the other end, as shown in figure 4.2.1, all three variables that were predicted to be affected by the attitude towards the social network were found to be insignificant, although the effect on the information sharing intention was close to be significant (p=0.058).

In the majority of the literature that tested the TAM model, the activity variables were not included, and the farthest the models go was the intention to act (for instance: Pedersen and Nysveen, 2003), the reason for that it probably the challenge in measuring actual activity in many areas. Even in this research the activity variables were calculated based on the research participants' responses, and there was no actual data gathering from the social network itself. In the researches that did include actual usage in the model (Pedersen, Nysveen and Thorbjørnsen, 2003; Moon and Kim, 2001), the only predictor of the actual activity was the intention to act, as suggested by the theory of reasoned action (TRA) of Ajzen and Fishbein's (1980).

Although in this research there was an attempt to predict the actual activities directly from the attitude towards the network, based on the literature it is not a surprise that the two activities variables, reading activity and the sharing of commercial information, were not significantly affected by the attitude towards the social network.

As already stated, attitude towards the network was insignificant also in predicting information sharing intention, although it was not far from being significant. Similar results appear in other researchers, where the attitude-intention to act relationships is not significant (Pedersen, Nysveen and Thorbjørnsen, 2003) or where the attitude variable is omitted all together, and the three preliminary factors (Perceived ease-of-use, perceived usefulness and self-expressiveness) are directly

connected to the intention to act (Chen, 2011). In addition to that, it is very much possible that the positive attitude towards the social network is not enough for making people willing to share commercial information, as will be discussed later on, when looking at the significant effect of the attitude towards the commercial information in the social network on the willingness to share information.

Attitude towards the Social Network commercial Information, the fifth variable, was predicted to affect the information sharing intention, the reading activity and the sharing of commercial information. In addition, it was predicted to have a correlation with self-expressiveness, as suggested by the modification command of AMOS 19.

The strong significant bi-directional correlation of the attitude towards the social network commercial information and self-expressiveness was already discussed earlier.

As shown in figure 4.2.1, attitude towards the social network commercial information is significantly influencing the information sharing intention and the sharing of commercial information, but has no significant influence on the reading activity. Both significant effects on information sharing intention (0.411) and the sharing of commercial information (0.311) are relatively high, although, as expected, the attitude is a better predictor of the intention to share information, compared with the actual sharing.

The strong effects of the attitude towards the social network commercial information on both the sharing intention and sharing activity is in the heart of this research, and it shows that users that believe that the commercial information in the social network is valuable and have positive attitude towards it, will be much more willing to share commercial information with others, and will actually also share more commercial information with others.

The insignificant effect of attitude towards the social network commercial information on the reading activity can be explained by the fact that the reading information variable was measure against all types of information in the social network (updates, statuses, photos and others) and this behavior has little to do with the attitude towards the commercial information. As already discussed the reading activity can be better predicted by the other factors that are more generic in nature, and that are related to the whole information within the social network.

Intention to share commercial information, the sixth variable, was predicted to be affected by the perceived usefulness, self-expressiveness, attitude towards the social network and attitude towards the social network commercial information. It was predicted to affect the sharing of commercial information.

As discussed already, the only variable the is significantly affecting the intention to share commercial information is the attitude towards the social network commercial information, although the effect of the attitude towards the social network was close to be significant, as well ($p=0.058$). Both perceived usefulness and self-expressiveness had non-significant effects on the intention to share commercial information.

As shown in figure 4.2.1, the effect of the intention to share commercial information on the sharing of commercial information was found to be significant. The strong effect (0.411) of the intention to share on the actual sharing was found in other researches that inserted the activity into the model (Pedersen, Nysveen and Thorbjørnsen, 2003; Moon and Kim, 2001). As already discussed, in this research the actual sharing was measured by the participants' reports, which increase the chances for finding a correlation between the two variables.

Sharing of commercial information, the seventh variable, was predicted to be affected by the attitude towards the social network, the attitude towards the social network commercial information and the intention to share commercial

information. As already discussed, both the attitude towards the social network commercial information and the intention to share commercial information are significantly affecting the sharing of commercial information. From the other end, the attitude towards the social network effect on the sharing of commercial information was found to be non-significant.

As mentioned before, this is the key of the model that shows that the main thing that is important for driving Facebook users to share commercial information is that they will have positive attitude on the commercial information within Facebook, and as a result will be willing to share this information.

Raban (2011) found out that customer satisfaction is the result of social interaction, in information-intensive services, but it is also a key driver for the continuance of social interaction. This cyclic relationships suggest that it might be that it's not only that high attitude towards the social network information that predict information sharing, but it's also the information sharing the might later on improve the attitude towards the social network information.

Reading of information, the eight variable, was predicted to be affected by the perceived usefulness, self-expressiveness, attitude towards the social network and attitude towards the social network commercial information.

As already discussed, perceived usefulness and self-expressiveness were significantly affecting the reading of information, while the attitude towards the social network and the attitude towards the social network commercial information effect was found to be non-significant. As mentioned already, these effects can be explained by the passive characteristic of the information reading in Facebook, and the automatism of this action. As a result, attitudes are not important, and as mentioned already behavior intention is also no important, and was omitted from the model. The things that are important are the usefulness of the social network

and the self-expression one can feel within the network. Without these, people would not use the social network that often.

As Agarwal and Prasad suggested (1999) in addition to the generality of the TAM model, there are personal differences between the Facebook users that might influence the way they form their attitudes towards Facebook and the information they get out of it.

In the current research the researcher did look into personal differences between the Facebook users (in chapter 3.2) but there was no integration of the personal relationships with the TAM model.

In addition to the 17 hypotheses supported the main model in this research, there were additional 6 hypotheses that were built around Hofstede's cultural dimensions and the variables of the model.

As discussed in chapter 4.2.5, **hypothesis H1** was rejected as there was a significant positive correlation between Hofstede's power distance index (PDI) and the number of friends in the social network. This can be explained by the loose friendships in Facebook. The large number of friends each Facebook user has leads us to the conclusion that was also verified in the literature, that the Facebook "friends" are far less attached to each other that what we normally called friends, and the it can better be described as loose relationships (Lewis and West, 2009). As a result, it might make sense that in cultures were there are major differences between people with different power-levels, there are still many people that are have equal power, and can be connected in the network.

In addition, it is important to mention, that as table 4.2.18 indicate, the average power distance dimension measured in this research was very far from the

Hofstede's published results, which leads the researcher to believe that there might be difficulties with the validity of the captured data of this dimension.

As discussed in chapter 4.2.5, **hypothesis H2** was supported, as a significant negative correlation of -0.168 ($p<0.05$) between Hofstede's masculine index (MAS) and the information sharing (SHARE) in the social network was found. As already discussed, these results are expected, since masculine cultures are usually more open to information exchange between people. It is important to mention, that as table 4.2.18 indicate, the average masculine dimension measured in this research was very close to the Hofstede's published results, which is also supporting the data collected in this research for this dimension.

As discussed in chapter 4.2.5, **hypothesis H3** was supported, as a significant negative correlation of -0.192 ($p<0.05$) between Hofstede's masculine index (MAS) and the attitude towards the social network commercial information (ASNI) was found. As already discussed, these results are expected, since masculine cultures are also usually more open to receive information from other people. Again, it is important to mention the high validity of the masculine dimension data in this research.

As discussed in chapter 4.2.5, **hypothesis H4** was not supported, as there was no significant correlation ($p<.05$) that was found between Hofstede's uncertainty avoidance index (UAI) and information reading (READ). This can be explained by the type of information that is published in Facebook, and is not information that has more social context than anything else. Social information of that sort might have minimal, if any, value to the reduction of uncertainty.

In addition, it is important to mention, that as table 4.2.18 indicate, the average uncertainty avoidance dimension measured in this research was very far from the Hofstede's published results, which leads the researcher to believe that there might be difficulties with the validity of the captured data of this dimension.

As discussed in chapter 4.2.5, **hypothesis H5** was not supported, as a significant negative correlation of -0.190 ($p<0.05$) between Hofstede's uncertainty avoidance index (UAI) and the attitude towards the social network commercial information (ASNI) was found. This can be explained by the exposure sharing information on the social network might have to the social network user. Cultures that have high uncertainty avoidance might be unwilling to share information with other people, as it might be risky and exposed.

In addition, it is important to mention again the validity problem of the measure data for the uncertainty avoidance dimension in this research.

As discussed in chapter 4.2.5, **hypothesis H6** was supported, as a significant negative correlation of -0.180 ($p<0.05$) between Hofstede's individualism index (IDV) and the perceived usefulness (PU) of the social network was found. As already discussed, these results are expected, since individual cultures were expected to value the social network less than collective cultures. It is important to mention, that as table 4.2.18 indicate, the average individualism dimension measured in this research was very close to the Hofstede's published results, which is also supporting the data collected in this research for this dimension.

In general, Gaspay, Dardan and Legorreta (2008) looked into many IT-related researches that involved the Hofstede's cultural dimensions. They found that in some cases the cultural prediction was found to be significant in the researches, but in other cases it was rejected. For instance, the researchers suggest that even the TAM model is not applicable all over the globe, and specified Japan as a place where it is not applicable.

In addition to the 23 hypotheses, there are some other interesting findings in this research.

First of all, as indicated in chapter 4.2.2, 92.3% of the participants claimed that Facebook is their preferred network and answered the rest of the questionnaire based on this information. Since Facebook's market share is 64.5% if we take YouTube into account, but if we only take social networks in the context of this research, Facebook has something between 85%-90% market share, and the next social network, is Twitter with around 2% market share (Marketing charts market share, 2011). Although it might be more accurate to say that this research is very much focused on Facebook, it looks like Facebook today can represent the whole social network market.

Looking at the Facebook usage habits of the users, as indicated in table 4.2.11 and table 4.2.12, it looks like there are high significant correlations ($p<0.01$) between the usage frequency and the time spent in the social network (0.725), as well as between the activity level of the users and the number of their friends (0.475). Still there are different profiles of users that can be identifies and approached. In the activity habits, there are users among the active users that use the social network few times a day but spend only few minutes every time, and there are the active users that access it few times a day but spend a lot of time each time. On the friendship habits, there are users that in the different average friends' group sizes access the network very seldom and actually use it to get updates once in a while, and there are users with the same group sizes that have very active friends group, use the network very often, and spend a lot of time in it.

Identifying the characteristics of each of these groups can provide important information for marketers that would like to use the social network wisely.

Looking at the drivers that can influence commercial information reading and sharing, as indicated in table 4.2.13, there are different reasons that are driving Facebook users to read and share commercial information, but the relevance of the information is the most influencing factor for reading information, and product

satisfaction if the most influencing factor for sharing information. Rewards were the least influencing factor in both categories.

Still, as indicated in table 4.2.14, among the rewards, money, gifts and attractive deals were the most influencing rewards. The preliminary research in chapter 3.4 looked into the category of attractive deals and found out that restaurants and bars are the vertical markets that attractive deals can be the most beneficial in.

As indicated in table 4.2.15, restaurants were also rated very high on willingness list of the social network users to share commercial information. Films and books were also graded high on this list.

In general 82% of the social network users perceive the information they get in the social network as either equal or better than the information they get from people they trust in the real world. This can show the strength of word of mouth in the online social networks, and the trust levels of the social network participants.

The preliminary research that was done in chapter 3.1 showed the strength of this word of mouth and the tremendous virality of message in the social network when transferred via word of mouth.

Regarding direct contact with vendors within the social network, as indicated in table 4.2.16, users see the direct contact with the vendor and the possibility to get answers to their questions, as the best value of this contact.

Looking at traditional push marketing strategies, such as advertisement, as indicated in table 4.2.17, the social network users are not big fans of these approaches and the majority of them either ignores advertisement, don't pay attention to it or think it's boring (3.19). Still they see little damage in advertisement to their willingness to use the social network.

4.3.2 Limitations of the research

One limitation of this research is concerning the participants age. The average age of a Facebook user is 38 (AllFacebook, 2011) and the average age of the participants in this research as indicated in table 4.2.1 is 32.36 which is younger than the published average. Still, the youth population aged 13-18 (Facebook limit the enrollment to age 13 officially) that constitutes about 11% of users worldwide and 19% of users in Israel (Facebook Statistics, 2011; Socialbakers, 2011) is not represented at all in this study. As indicated in the preliminary research discussed in chapter 3.3, young people perceive their Facebook friends' group more as a group than any other age group, and it can be expected that the information sharing phenomenon analyzed in this research will be stronger in the young age groups.

Another limitation of this research is the geographic limitation, as all participants in this research were Israelis, which limits the perspective of this research and its external validity. As indicated in hypotheses 1 to 6, there are cultural effects to the variables used in this research model, and as a result, limiting the research to a single country can influence these variables.

Another limitation of this research is the usage of self-reporting questionnaires. This limitation is specifically critical in both the activity and attitude variables were variables were calculated based on the participants opinion reports, which can be biased compared to reality.

Additional limitation of this research is related to the sample that was used in this research. The participants that answered the research questionnaire got the questionnaire in a viral way starting from the researcher friends group. This is not a random sample, and as a result might have its effect on the result of the research.

Last limitation of this research is the age of the collected data. The data collected to this research was collected in the second part of 2010. In the social network era,

when things are changing very rapidly, this might be a disadvantage to the validity of the research conclusions, as time pass.

Chapter 5 – Conclusion and implications

5.1 Operational conclusions

The unique contribution of this study is in the usage of the technology acceptance model (TAM) and the theory of reasoned action (TRA) in an analysis of the decision process of social network users regarding commercial word of mouth spread. As already stated, the main conclusions out of the analysis of the research model are:

1) Perceived ease of use of the social network is an important factor that affects the attitude towards the social network, and is also highly correlated with the feeling of self-expressiveness in the social network. Social network websites and companies that create their appearance in the social network should maximize the ease of use of their users.

2) Feeling of self-expressiveness in the social network users is one the most important affecting factors that Influence the perceived usefulness and the attitude towards the social network, as well as the activity of information reading in the social network. It is also highly correlated to the perceived ease-of-use and to the attitude towards the social network commercial information. Enabling and enhancing the options for self-expressiveness is a key then in increasing users' satisfaction and activity levels.

3) Perceived usefulness of the social network is another factor that is influenced by the feelings of self-expressiveness and is influencing the activity of information reading in the social network. As already stated, the effect of perceived usefulness on the attitude towards the social network was close to be significant, as well. Making the social network useful in the users' perception is important, as well, for increasing their social network

usage. It is important to note that factors for usefulness should be adapted according to the users' needs.

4) The attitude towards the social network is influenced both by the perceived ease-of-use of the network and the self-expressiveness of its users. As already mentioned the effect of perceived usefulness on the attitude and the attitude's effect on the intention to share commercial information were close to be significant. Although the general attitude towards the social network was expected to be a key factor in this research's model, according to the findings, the other variables play a more significant role in driving word of mouth in the social network.

5) The attitude towards the social network commercial Information is highly correlated with the self-expressiveness of the social network's users, and is affecting both the intention to share and the actual sharing of commercial information. This attitude was found to be much more meaningful in promoting commercial word of mouth compared to the attitude towards the social network in general. As a result, it is recommended to track this attitude both in the general social network perspective and in the specific vendor/brand's perspective.

6) The intention of the social network users to share commercial information with others is affected by the attitude towards the social network commercial Information and is affecting the actual sharing of commercial information. As already stated, the effect of the attitude towards the social network in general on the intention to share information was close to being significant. With the high effect of the intention to share on the actual sharing in this model, the intention is a key goal companies should take care of.

7) The activity of information reading is affected by the self-expressiveness of the social network users and perceived usefulness of the network. As already stated, since information reading in the social network is an almost automatic activity once getting into the network, there was no intention stage measured in this research. Encouraging usage of the social network and encouraging information reading is a key mission in order to increase the effect of the commercial information that is shared. Without people that read the commercial information, there is obviously no value for the companies out of the information sharing itself. Thus, enhancing information reading is also a key goal for vendors that would like to enhance commercial word of mouth transfer.

8) The activity of sharing of commercial information is affected by the attitude towards the social network commercial information and by the intention to share commercial information. This activity is the heart of this research, and as expected it is affected by the intention to share information and by the value users see in the commercial information in the social network. The better the word of mouth information is, the more people will want to take a part in it, both passively and actively.

In addition to the direct conclusions of the model, there were few conclusions that were based on the cultural dimensions analysis of the model variables:

1) Commercial information sharing in the social network was found to be higher in cultures that are low in their Hofstede's masculine index (feminine cultures) such as Sweden, Norway and the Netherlands (Hofstede website, 2011).

2) The attitude towards the commercial information published within the social network was also found to be higher in cultures that are low in their Hofstede's masculine index (feminine cultures) and lower in cultures that are high in their Hofstede's masculine index (masculine cultures) such as Slovakia, Japan and Hungary (Hofstede website, 2011).

3) The perceived usefulness of the social network was found to be higher in cultures that are low in their Hofstede's individualism index (collective cultures) such as Ecuador, Panama and Venezuela (Hofstede website, 2011).

It's important to emphasize that conclusions in the cultural dimension cannot be generalized due to the small subsamples used in this research.

Additional conclusions that can be drawn from this research are:

1) As expected, Facebook is by far (market share that is higher than 90%) the most popular social network today.

2) There are high correlations between the usage frequency, the time spent in the social network and the number of friends in the social network. There are different profiles of users, given these three parameters that can be used for segmentation purposes.

3) Relevance of the commercial information was found to be the most influencing factor in driving reading of commercial information. Product satisfaction was found to be the most influencing factor for sharing commercial information. Rewards were found to be the least influencing factor in both categories.

4) Among the rewards people want in return for sharing commercial information, money, gifts and attractive deals were the most influencing rewards.

5) Restaurants, films and books were rated very high on the list of products and services that users will be willing to share commercial information about.

6) The vast majority of the social network users perceive the information they get in the social network as either equal or better than the information they get from people they trust in the real world.

7) Users see the direct contact with vendors and the possibility to get answers to their questions from the vendor, as the best value out of this contact.

8) Social network users are not big fans of the traditional push marketing strategies, such as advertisement. The majority of them either ignores advertisement, don't pay attention to it or think it's boring, but it doesn't hurt their willingness to use the social network.

The main conclusions drawn as a part of the four preliminary researches that were done in this research are:

1) The virality of word of mouth communication within the group of social network friends was demonstrated. 80 new members were added to a restaurant page virally within a month, and the network included four branches of seven members each, which is showing the healthiness of the group, that is not based on a single track of friends.

2) The value of the social network interaction is optimal for people with medium levels of social connections in the "real" world, since this group probably has the time, motivation and energy required for massive social networking activities.

3) Women use social networking more than men and they appreciate much more the opportunity for social exposure and communication (quality) rather than the size of the network and its strength (quantity).

4) Facebook users perceive their friends group as a group and treat it as such. This feeling of entitativity is growing as their collective self-esteem of this group is higher. Young users feel this group feeling better than the older ones.

5) Restaurants and bars were found to be the vertical markets that attractive deals can be the most beneficial in. The offering entity reputation (the social network, in this case) that is offering the attractive deal has also a strong effect on it success.

5.2 Summary of conclusions

The central model of this research supported the technology acceptance model (TAM) and the theory of reasoned action (TRA) in the case of commercial information sharing through word of mouth. It shows that self-expressiveness, perceived ease of use and perceived usefulness are influencing social network users' attitudes towards the social network and towards the commercial information within the social network. Self-expressiveness seems to be the most influencing factor that affects the perceived usefulness, the attitude towards the social network and the information reading activity, and is highly correlated with both the perceived ease of use and the attitude towards the commercial information shared in the social network. Perceived ease of use is affecting the attitude towards the social network and is highly correlated with the self-expressiveness. Perceived usefulness is only affecting the information reading activity but it was close to be significant also in affecting the attitude towards the social network.

The attitude towards the social network was close to be significant in affecting the commercial information sharing intention. The attitude towards the shared commercial information affects both the commercial information sharing intention and the actual sharing activity. It is also correlated with the self-expressiveness factor. The commercial information sharing intention is affecting the actual sharing activity.

Out of the two measured activities, the information reading activity is affected by self-expressiveness and the perceived usefulness, and the commercial information sharing is affected by the attitude towards the shared commercial information and by the intention to share commercial information.

On the effect of cultural dimensions on the model variables, both attitude towards the shared commercial information and the actual commercial information sharing were found to be higher in feminine cultures. The perceived usefulness of the social network was found to be higher in collective cultures.

In addition to the model, Facebook was found to be by far the most popular social network today. There were high correlations that were found between the usage frequency, the time spent in the social network and the number of friends in the social network.

The relevance of the commercial information was found to be the most influencing factor in driving reading of commercial information. Product satisfaction was found to be the most influencing factor for sharing commercial information. Rewards were found to be the least influencing factor in both categories, but still among the different rewards people want in return for sharing commercial information, money, gifts and attractive deals were the most influencing rewards. Restaurants, films and books were the products/services users are the most willing to share commercial information about. In the preliminary research it was also

found that restaurants and bars were found to be the vertical markets that attractive deals can be the most beneficial in.

Most of the social network users perceive the information they get in the social network as equal or as better than the information they get from people they trust in the real world.

Users see the direct contact with vendors and the possibility to get answers to their questions from the vendor, as the best value out of this contact. Still, traditional push marketing strategies, such as advertisement, are mainly ignored.

In the preliminary researches done prior to this research the virality of word of mouth communication within the group of social network friends was demonstrated with 80 new members that were added to a restaurant page virally within a month. It was also found that the value of the social network interaction is optimal for people with medium levels of social connections in the outer world. It was also found that women use social networking more than men and they appreciate much more the quality of their network rather than its size.

The preliminary research also found that Facebook users perceive their friends group as a group and treat it as such, and the younger the users are the stronger this phenomenon is.

5.3Implications for future research

The researcher believes that future research about the connections that were examined in this research is essential, mainly since the social networks area is new and very dynamic. Phenomena that were found in the first years of the social networks existence might change during the following years.

With regards to the model examined in this model, further research is necessary for examining the role of self-expressiveness in the usage of social network for commercial use, and the factors that are affecting this variable. In addition to that, it is also interesting to research the other factors that might influence the attitude towards the commercial information within the social network, such as relevance, attractiveness and information value.

As already stated, in this research the two activities variables were both reported by the users. Future research might be focused around the actual measurement of these (and other) activity variables, in order to check the actual intention-action relationships within the social network.

There is also future research required in the cultural dimensions front, with the comparison of different cultures. As already stated, there was a mismatch found in this research between the measured variables and the variables published by Hofstede (Hofstede website, 2011), which might be evaluated in a competitive future research.

In addition to the research model, future research is also needed in evaluating additional rewards users might want in return for their information sharing. These rewards might change in the future, as the social networks become more common and mature.

With regards to the areas discovered in the preliminary researches, the future research suggestions were also described in the summary sections within chapters 3,4,5 and 6.

5.4 A final word

For the researcher, this research was an extremely challenging and fascinating journey, into one of the most amazing phenomena that kicked off about 5-6 years ago, and changed the life of so many millions of people. When the researcher started this research 3-4 years ago, social networks and Facebook in particular were doing their baby steps, and many people around me were asking me if choosing this topic is not risky, since it might disappear within few years. Nevertheless the researcher thought this phenomenon is not going to disappear and the researcher believed it will become an amazing platform for business entities that only started to think about it, back in those days.

Today the potential of the social networks is not a secret anymore, and almost every company is already trying to leverage it in some way or form. Surprisingly enough, most of the companies are still using traditional push-marketing strategies, strategies that have not been successful during the years.

This research was trying to look into the things that can make the commercial information word of mouth sharing a win-win situation for both the social network users and the commercial entities. Since there was not much research done on the social networks when the researcher started this research, and even today the research is still relatively limited, the challenge the researcher had was even more interesting for me, and by using few preliminary researches in different angles, the researcher started to better understand the social network and its amazing strength.

The researcher would like to hope that the unique contribution of this research will make one more step in the research of the amazing phenomenon of social networks and will help companies make the most out of it.

Chapter 6 – References

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Chapter 7 - Appendices

7.1 Research Questionnaire

SOCIAL NETWORKS: A CROSS-CULTURAL STUDY

Instructions: Please, answer the questions by ticking a (x) in the appropriate box (☐).

I. USAGE HABITS

1 **Are you registered** to an online social network (such as Facebook, Twitter, etc…) ?

1) Yes ☐

2) Not sure ☐ →**THANKS FOR YOUR PARTICIPATION IN THIS SURVEY!**

3) No ☐ →**THANKS FOR YOUR PARTICIPATION IN THIS SURVEY!**

2 What are the social networks that **you use, in order of preference** (1-Your preferred network, 2-Your 2nd preferred network, etc…)

1) Facebook 2) Twitter 3) MySpace

4) Linkedin 5) Other. Please specify:

3 **For how long** do you use your preferred social network?

1) Up to 1 Year ☐ 2) 1-2 years ☐ 3) More than 2 years ☐

4 **How many friends** (approximately) do you have within your preferred social network?

1) Up to 10 friends ☐

2) 11 – 50 friends ☐

3) 51 – 150 friends ☐

4) 151 – 400 friends ☐

5) More than 400 friends ☐

5	**How often (in average)** do you access your preferred social network?			
1)	Less than once a month	☐	4) Once a day	☐
2)	1-4 times a month	☐	5) Few times a day	☐
3)	Few times a week	☐		

6	**How much time (in average)** do you spend in your preferred social network **every week?**			
1)	Less than 10 minutes	☐	5) 3 – 7 hours	☐
2)	10-30 minutes	☐	6) 7-14 hours	☐
3)	30-60 minutes	☐	7) More than 14 hours	☐
4)	1-3 hours	☐		

II. ATTITUDE TOWARDS SOCIAL NETWORKS AND CULTURAL VALUES

7	Please indicate your **general attitude** towards the following statements	Very Negative				Very Positive Attitude
		1	**2**	**3**	**4**	**5**
1)	My general attitude to the **Social Network I use the most** is very favourable	☐	☐	☐	☐	☐
2)	My general attitude to the **other Social Networks** is very favourable	☐	☐	☐	☐	☐
3)	My preferred social network enables an efficient commercial exchange information (related to products/services I use)	☐	☐	☐	☐	☐

8	Please indicate **your level of agreement** with the following	Strongly Disagree	Strongly Agree

	statements regarding your preferred social network.	1	2	3	4	5
1)	I feel connected to other people	☐	☐	☐	☐	☐
2)	I can keep in touch with my friends and family	☐	☐	☐	☐	☐
3)	I share photos with my friends	☐	☐	☐	☐	☐
4)	I view photos published by my friends	☐	☐	☐	☐	☐
5)	I read my friends updates	☐	☐	☐	☐	☐
6)	I can meet new people	☐	☐	☐	☐	☐
7)	I chat with my friends within the network	☐	☐	☐	☐	☐
8)	I get important updates about events and other activities	☐	☐	☐	☐	☐
9)	I'm still not sure what is its value	☐	☐	☐	☐	☐
10)	I don't see any value in it	☐	☐	☐	☐	☐

9	Please indicate **your level of agreement** with the following statements regarding the **usefulness and ease of use** of the social networks, in particular your social network preferred.	Strongly Disagree 1	2	3	4	Strongly Agree 5
1)	Using social networks enables me to socially interact with my friends quicker.	☐	☐	☐	☐	☐
2)	Using social networks improves my social life performance (I interact more often, get better updated, keep social relationships stronger).	☐	☐	☐	☐	☐
3)	Using social networks gives me greater control over my social interactions.	☐	☐	☐	☐	☐
4)	Using social networks improves the quality of my social relationships.	☐	☐	☐	☐	☐
5)	Using social networks enhances my effectiveness in maintaining my social relationships.	☐	☐	☐	☐	☐
6)	Using social networks makes it easier to maintain my social relationships.	☐	☐	☐	☐	☐
7)	Overall, I find using social networks useful in my social life.	☐	☐	☐	☐	☐
8)	It is easy for me to remember how to perform tasks using the social network site.	☐	☐	☐	☐	☐

9)	I believe that it is easy to get social networks to do what I want it to do.	☐	☐	☐	☐	☐
10)	My interaction with social networks is clear and understandable.	☐	☐	☐	☐	☐
11)	I find social network to be flexible to interact with.	☐	☐	☐	☐	☐
12)	It is easy for me to become skilful at using social networks.	☐	☐	☐	☐	☐
13)	Overall, I believe that social networks are easy to use.	☐	☐	☐	☐	☐
14)	I like using social networks	☐	☐	☐	☐	☐
15)	Social networks are fun to use	☐	☐	☐	☐	☐
16)	I wouldn't mind to switch over to another social network if it has better functionalities	☐	☐	☐	☐	☐
17)	I intend to increase the use of my social network in the future	☐	☐	☐	☐	☐
18)	I often talk to others about the social networks.	☐	☐	☐	☐	☐
19)	Using the social networks is part of how I express my personality.	☐	☐	☐	☐	☐
20)	When sharing information in the social network, I usually think about how others will perceive it.	☐	☐	☐	☐	☐
21)	Other people are often impressed by the way I use the social networks.	☐	☐	☐	☐	☐

10 For each pair of opposite statements choose the **position** that, in general, **best describes the culture of your country and the way most people think, act and feel, <u>regardless whether you identify with that position or not</u>.**

		1	**2**	**3**	**4**	**5**	
1)	Inequalities among people should be minimized	☐	☐	☐	☐	☐	Inequalities among people are both expected and desired
2)	Parents treat children as equals	☐	☐	☐	☐	☐	Parents teach children obedience
3)	Subordinates expect to be consulted	☐	☐	☐	☐	☐	Subordinates expect to be told what to do
4)	Privileges and status symbols are frowned upon	☐	☐	☐	☐	☐	Privileges and status symbols (for

			managers) are both expected and popular
5)	All should have equal rights	☐ ☐ ☐ ☐ ☐	The powerful have privileges
6)	Powerful people try to look less powerful than they are	☐ ☐ ☐ ☐ ☐	Powerful people try to look as impressive as possible
7)	Children treat parents as equals	☐ ☐ ☐ ☐ ☐	Children treat parents with respect
8)	High stress; subjective feeling of anxiety.	☐ ☐ ☐ ☐ ☐	Low stress and subjective feeling of well-being
9)	Acceptance of familiar risks; fear of ambiguous situations and of unfamiliar risks	☐ ☐ ☐ ☐ ☐	comfortable in ambiguous situations and with unfamiliar risks
10)	There should not be more rules than is strictly necessary	☐ ☐ ☐ ☐ ☐	Emotional need for rules, even if these will never work
11)	Tolerance of deviant and innovative ideas and behavior	☐ ☐ ☐ ☐ ☐	Suppression of deviant ideas and behavior; resistance to innovation
12)	Few and general laws and rules	☐ ☐ ☐ ☐ ☐	Many and precise laws and rules
13)	Citizen protest acceptable	☐ ☐ ☐ ☐ ☐	Citizen protest should be repressed
14)	Citizens positive towards institutions	☐ ☐ ☐ ☐ ☐	Citizens negative towards institutions
15)	People and warm relationships are important	☐ ☐ ☐ ☐ ☐	Money and material things are important

16)	Everybody is supposed to be modest	☐ ☐ ☐ ☐ ☐	Men are supposed to be assertive, ambitious and tough.
17)	Both men and women are allowed to be tender and to be concerned with relationship.	☐ ☐ ☐ ☐ ☐	Women are supposed to be tender and to take care of relationships
18)	Both boys and girls are allowed to cry.	☐ ☐ ☐ ☐ ☐	Girls cry, boys don't.
19)	Work in order to live	☐ ☐ ☐ ☐ ☐	Live in order to work
20)	Stress on equality, solidarity, and quality of work life	☐ ☐ ☐ ☐ ☐	Stress on equity, competition among colleagues, and performance
21)	International conflicts should be resolved by negotiation and compromise	☐ ☐ ☐ ☐ ☐	International conflicts should be resolved by a show of strength or by fighting
22)	People are born into extended families or other ingroups which continue to protect them in exchange for loyalty	☐ ☐ ☐ ☐ ☐	Everyone grows up to look after him/herself and his/her immediate (nuclear) family only
23)	Identity is based in the social network to which one belongs	☐ ☐ ☐ ☐ ☐	Identity is based in the individual
24)	Harmony should always be maintained and direct confrontations avoided	☐ ☐ ☐ ☐ ☐	Speaking one's mind is a characteristic of an honest person
25)	Collective interests prevail over individual interests	☐ ☐ ☐ ☐ ☐	Individual interests prevail over collective interests
26)	Private life is invaded by group(s)	☐ ☐ ☐ ☐ ☐	Everyone has a right to privacy

27)	Opinions are predetermined by group membership	☐ ☐ ☐ ☐ ☐	Everyone is expected to have a private opinion
28)	Ideologies of equality prevail over ideologies of individual freedom	☐ ☐ ☐ ☐ ☐	Ideologies of individual freedom prevail over ideologies of equality

III. INFORMATION EXCHANGE DRIVERS

11	Please indicate your **level of agreement** with the following statements regarding **exchange of information about commercial products or services (that you either heard about or experienced personally)**	Strongly Disagree 1	2	3	4	Strongly Agree 5
1)	I shared information about product/services I either experienced or heard about in the social network.	☐	☐	☐	☐	☐
2)	I shared information only about product/services that I personally used	☐	☐	☐	☐	☐
3)	I am positive towards the idea of sharing such information in a social network	☐	☐	☐	☐	☐
4)	I'm not interested in sharing such information	☐	☐	☐	☐	☐

12	Please indicate your **level of agreement** with the following statements as factors that **will make you SHARE/READ more information** concerning products or services in your social networks. (Please indicate your level of agreement in both the "READ" and "SHARE" columns or leave it empty if not relevant)	**READ** Strongly Disagree 1	2	3	4	Strongly Agree 5	**SHARE** Strongly Disagree 1	2	3	4	Strongly Agree 5

1) High level of **network security**	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐
2) High level of **satisfaction with the product/service**		☐ ☐ ☐ ☐ ☐
3) High level of **rewards** for using the social network	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐
4) Relevance of the information (I'm interested in the area, I'm going to purchase this product, and so on)	☐ ☐ ☐ ☐ ☐	
5) Other: Please specify:	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐

13	Please indicate your **level of agreement** with following statements regarding **product's/service's information that you read (or can potentially read) through your social network**	Strongly Disagree **1**	**2**	**3**	**4**	Strongly Agree **5**
1)	I can get information in the social network that I can't find anywhere else	☐	☐	☐	☐	☐
2)	The information in the social network is trustworthy since it comes from people that used the product/service	☐	☐	☐	☐	☐
3)	The information in the social network is trustworthy since it comes from people I know	☐	☐	☐	☐	☐
4)	It's easier to find this kind of information in the social network rather than in other sources	☐	☐	☐	☐	☐
5)	I never really needed this kind of information yet	☐	☐	☐	☐	☐
6)	There is no value in this kind of information	☐	☐	☐	☐	☐
7)	Information from my preferred social network will influence my buying intentions	☐	☐	☐	☐	☐
8)	Other - Please specify:	☐	☐	☐	☐	☐

14	Please indicate your **level of agreement** with the following statements as **reasons for exchanging information with commercial entities within the social network** (such as Companies, brands, etc...)	Strongly Disagree **1**	**2**	**3**	**4**	Strongly Agree **5**

1)	Getting updated information from the company	☐	☐	☐	☐	☐
2)	Getting some attractive offers	☐	☐	☐	☐	☐
3)	Getting my questions answered	☐	☐	☐	☐	☐
4)	Getting a direct contact with a company	☐	☐	☐	☐	☐
5)	I never exchange information with commercial entities	☐	☐	☐	☐	☐
6)	I get no value out of that	☐	☐	☐	☐	☐
7)	Other - Please specify:	☐	☐	☐	☐	☐

15	Please indicate your **level of agreement** with following statements regarding the following **"rewards" that might encourage you to share commercial information and recommend services or products you experienced/tried**	Strongly Disagree **1**	**2**	**3**	**4**	Strongly Agree **5**
1)	Monetary Rewards (Money)	☐	☐	☐	☐	☐
2)	Get attractive deals	☐	☐	☐	☐	☐
3)	Gifts	☐	☐	☐	☐	☐
4)	Entertainment content (e.g. humor clips)	☐	☐	☐	☐	☐
5)	Information (e.g. comparison table with other brands)	☐	☐	☐	☐	☐
6)	Personalization (e.g. Information relevant to my needs to me, On demand availability of the information)	☐	☐	☐	☐	☐
7)	Other - Please specify:	☐	☐	☐	☐	☐

16	Please indicate your **level of agreement** with following statements regarding the **type of products/services/companies you'll be more willing to exchange information on**	Strongly Disagree **1**	**2**	**3**	**4**	**5**	**6**	Strongly Agree **7**
1)	Fashion	☐	☐	☐	☐	☐	☐	☐

2) Airlines	☐	☐	☐	☐	☐	☐	☐
3) Tourism	☐	☐	☐	☐	☐	☐	☐
4) Electronics	☐	☐	☐	☐	☐	☐	☐
5) Restaurants	☐	☐	☐	☐	☐	☐	☐
6) Websites	☐	☐	☐	☐	☐	☐	☐
7) Food	☐	☐	☐	☐	☐	☐	☐
8) Books	☐	☐	☐	☐	☐	☐	☐
9) Films	☐	☐	☐	☐	☐	☐	☐
10) Other. Please specify:	☐	☐	☐	☐	☐	☐	☐

18	**The information that you can get in your social network compared to the information that you can get from other sources, is...**

Far less valuable	Less valuable	Same value if it comes from people I trust	More valuable	Far more valuable
☐	☐	☐	☐	☐

19	Please indicate your **level of agreement** with following statements regarding **commercial <u>advertisement</u> of products/services** within your social network	Strongly Disagree **1**	**2**	**3**	**4**	Strongly Agree **5**
1)	I never really paid attention to it	☐	☐	☐	☐	☐
2)	I fully ignore it	☐	☐	☐	☐	☐
3)	It makes me less willing to use this network	☐	☐	☐	☐	☐
4)	It's very boring	☐	☐	☐	☐	☐
5)	It's a necessary evil for funding the social network	☐	☐	☐	☐	☐

6) It adds value to my use of the network	☐	☐	☐	☐	☐
7) If done currently, it can be very positive	☐	☐	☐	☐	☐
8) Other - Please specify:	☐	☐	☐	☐	☐

IV. GENERAL INFORMATION

20 What is your **gender?**

1) Female ☐

2) Male ☐

21 What is your...

Date of Birth (day/month/year):

Marital Status:

22 What is your **primary language?**

1) English ☐

2) Portuguese ☐

3) Spanish ☐

6) Hebrew ☐

7) Other - Please specify: ☐

23 What is the **highest level of education** you have completed?

1) Elementary school ☐

2) High school or equivalent ☐

3) Vocational/technical school (2 year) ☐

4) College ☐

5) Bachelor's degree ☐

8) Master's degree ☐

9) Professional degree (MD, JD, etc.) ☐

10) Doctoral degree ☐

11) Other - Please specify: ☐

24 In which **country** do you **currently reside?**

25 **How is your household income compared to the average salary in the market?**

Far below average	Below average	On Average	Above average	Far above average
☐	☐	☐	☐	☐

26 Which of the following best describes the **area you live in?**

1) Urban ☐ 2) Suburban ☐ 3) Rural ☐

27 What is your **current employment status?**

1)	Self Employed OR work in my own company ☐	6)	Temporarily at home with children ☐
2)	Work for a company (that doesn't belong to me) ☐	7)	Work occasionally ☐
3)	Pensioner ☐	8)	Unemployed ☐
4)	Student ☐	9)	Dependent (illness) ☐
5)	Permanently at home as a housewife (applicable for men or women) ☐	10)	Other - Please specify: ☐

28 **How long have you been using the Internet?**

1)	Less than 6 months ☐	4)	4 to 6 years ☐
2)	6 to 12 months ☐	5)	7 years or more ☐
3)	1 to 3 years ☐		

29 **How frequently do you access the web from the following places?** (Very High Frequency-Few times a day, Very Low

Very low Frequency				Very High Frequency
1	**2**	**3**	**4**	**5**

	Frequency-once a month or less)					
1)	From home (including a home office)	☐	☐	☐	☐	☐
2)	From work	☐	☐	☐	☐	☐
3)	From school	☐	☐	☐	☐	☐
4)	From a public terminal (e.g. library, cybercafé)	☐	☐	☐	☐	☐
5)	From other places. Please specify:	☐	☐	☐	☐	☐

THANKS FOR YOUR COLLABORATION!

Oren Gil-Or – List of Publications

Journals/Periodicals:

- Gil-Or O. (2010): The potential of Facebook in creating commercial value for service companies, Advances in Management, Vol. 3 (2), pp. 20-25, ISSN: 0974-2611

- Gil-Or O. (2010): Building consumer demand by using viral marketing tactics within an online social network, Advances in Management, Vol. 3 (7), pp. 7-14, ISSN: 0974-2611

- Gil-Or O. (2010): Pricing decisions in the online arena, New Horizons of Business Thought, Vol. 2, pp. 1-7, ISSN: 0975-6817

- Gil-Or O. (2010): The lesson learned from the economic crisis and the monetary policy Iceland, PROFICIENT International Journal of Management, Vol. 2 (4), pp. 14-25

- Gil-Or O. (2011): Social networks and social isolation: A reason and its solution in one, Pragyaa journal of Management, Vol. 2 (1), pp. 1-7, ISSN: 0975-9603

- Gil-Or O. (2011): Friends in Facebook instead of friends in the real world, Innovation in management, Tel-Aviv University, Israel, Vol. 22, p. 53

- Gil-Or O. (2011): Services promotion using virtual marketing in social networks, Open University Management and Economics Department management journal, Vol. 8, pp. 22-28

- Gil-Or O., Rekettye G. (2012): Social group buying pricing decisions, Far East Journal of Psychology and Business, Vol. 6 (1), pp. 22-29, ISSN: 2219-5440

Conference Papers:

- Gil-Or O. (2009): Commercial value creation for service companies in Facebook (and the other Online Social Networks), 2nd Annual EuroMed Conference Proceedings, Salerno, Italy, October 2009, pp. 745-755, ISBN: 978-9963-634-76-7

- Gil-Or O. (2009): Commercial value creation in the contemporary "global culture" of Facebook, Culture of Business - Capital of Culture Conference, Pécs, Hungary, October 2009, pp. 125-138, ISBN: 978-615-5001-09-3

Conference Presentation:

- Commercial value creation for service companies in Facebook (and the other Online Social Networks), 2nd Annual EuroMed, Salerno, Italy, October 2009

- Commercial value creation in the contemporary “global culture” of Facebook, Culture of Business - Capital of Culture Conference, Pécs, Hungary, October 2009

- Non-conventional marketing, Direct Selling Association (DSA) Conference, Ramat-Gan, Israel, April 2010

Others:

Lecturer in the following courses:

- Marketing Fundamentals
- Consumer Behavior
- International Marketing
- Advertisement
- Electronic commerce
- Culture and Management
- Online Marketing
- Sales Negotiation Skills
- Services Marketing
- Branding
- Business Strategy
- Social and Online Marketing
- Marketing Policy
- High-tech marketing
- Information systems design
- Introduction to Computer Science

Courses were given in the following institutes:

- Ariel University Center (MBA program)
- Open University (BA and MBA programs)
- Management College (MBA program)
- Peres Academic Center (BA program)
- Jerusalem Academic Center – Lander Institute (BA program)
- Bar-Ilan University (Non-academic program)
- Tafnit School (Non-academic program)
- Tel-Aviv University (BA and MBA program, teaching assistant)