RESEARCH ARTICLE

Commercial Value in Online Social Networks using eWOM

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Abstract

Online social networks and Facebook as the shining leader are among the mostpopular websites. As aresult, they became a fascinating infrastructure for businesses that arewilling to leverage this tremendous opportunity. Although the vast majority of marketersare using Facebook as a marketing tool, most of the current efforts have not yet yielded the desired ROI. In this research the researchers analyzed the main factors that expedite commercialword-of-mouth in Facebook and figured out how companies can leverage the realpotential commercial value of the network. In order to do that, the technologyacceptance model (TAM) and the theory of reasoned action (TRA) were used, in thecontext of the social networks. Results show that self-expressiveness seems to be the most influencing factor thataffects the perceived usefulness, the attitude towards the social network and theinformation reading activity, and is highly correlated with both the perceived ease ofuse and the attitude towards the commercial information shared in the social network.Perceived usefulness is affecting theinformation reading activity. Out of the two measured activities, information reading activity is affected by self-expressivenessand perceived usefulness and commercial information sharing areaffected by the attitude towards the shared commercial information and by the intention to share commercial information. Consequently, companies that would like to encourage commercial-oriented word-of-mouthshould improve the usefulness of the social network for their customers, and theability of these to self-express themselves.

Keywords: Social Networks, Facebook, Word-of-Mouth, Facebook's Commercial value.

Introduction

Electronic social networks such as Facebook, Twitter and others, have joined the most popular websites list [1]. Facebook is the largest social network, with more than one billion active users as of January 2014 and approximately 22% annual growth in 2013 [2]. Although Facebook is considered to be a tool for young people, 46.7% of its users are above 35 years old [3]. 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. Using marketing within a social network in an effective way is a very challenging task for big, medium and small companies. 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), approaches that disregard the main asset of the social network. This asset is the "connection" between the network's members (with some level of familiarity) and the ability of these members to 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).

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 [4]. 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 [5]. The trust challenge has increased over the last few years with the appearance of the digital media [6] that lacks effective government regulation.

In order to develop a better approach for both companies and 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, valuable for commercial use, is the heart of this paper. Word-of-mouth (both traditional and electronic) is very critical in the decision making of consumers. According to AC Nielsen [7], "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 [8] "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 [9].

In this research the researchers analyzed the main factors expedite commercial word-of-mouth in online social networks (preliminary Facebook)

so companies can leverage the real commercial potential of the network.

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.

The Facebook Participants' Motivations

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 reduces people's feeling of loneliness and depression. These loneliness feelings are amplified in today's modern world with the extended use of technology instead of social relationships [10]. In addition the internet is helping people's self-esteem and their perceived social support [11,12].

Facebook 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 [12]. 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 prefer 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 [10]. According to Couldry and Curran [13] some of the traditional physical social networks (such as meeting with friends in the food market) got "replaced" by online appearances of these networks.

The motivations of companies within social networks are different than the social networkers, from obvious reasons. In a survey of 3,300 marketers [14], the main benefits marketers indicated were: exposure (88%), traffic/subscribers to the website (72%), improved search ranking (62%), new business partnerships (56%) and generation of qualified leads (51%), marketing expense reduction (49%) and increased sales (43%).

Despite what one can think, there seem to be a mutual interest in having conversations between companies and their consumers. This interest is

the transfer of information and the reduction of risk and cost in future business transactions. In addition to that, brand-related information can also be entertaining.

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 [15]. There are different forms of electronic word-of-mouth, such as: web-based opinion platforms, discussion forums, news groups, boycott websites and others [16]. Facebook, and the other online social networks, provide a single platform that supports this type of communication naturally.

Word-of-mouth was always a critical factor in success of products, specifically in the diffusion stage of new products [17]. 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 [18]. 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 [19].

Word-of-mouth had been overshadowed and underestimated for long timeprior to the Internet era. Its revival started when Internet marketing experts discovered the persuasive power of word-of-mouth in online environments. As it is explained by Litvin et al [20] "the key defining characteristic of word-of-mouth is the perceived independence of the source of the message. This definitional evolution indicates, with information technology today ubiquitous, that word-of-mouth is becoming both more pervasive and amorphous…word-of-mouth is the communication between consumers about a product, service, or a company in which the sources are considered independent of commercial influence."

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 vendors. As a result, word-of-mouth recommendations seem to be reliable and reduce uncertainty and risk in the buying process. This safer buying environment enables consumers to increase their purchased volumes [21]. 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 regards to commercial goods, as opposed to 14% that believe to traditional advertisement [22].

Facebook as a social network is a relatively weak and static network, as a result of the weakness (in terms of the amount of information that is exchanged) and the static nature (small changes to one's network) of its relationships. In addition to that, Facebook is a "public" network, where information that can be treated as private is published around the network [23]. 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, as participants will be more willing to share information in a dense network, compared to a sparse network [24].

Despite its complexities, companies should be interested to participate 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 [25].

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 [26]. Most of the social interactions within a 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 [27].

Motivation of Sharing Information in the Internet

Wasko and Faraj [28] in their pioneering research regarding web information sharing found three major reasons that make people share information with others: concrete rewards (21.5%), intangible rewards (20%) and community rewards (42%). Concrete rewardsincluded access

to useful information and expertise and personal/sales advertisement. Intangible rewardsincluded a sense of fulfillment and satisfaction, pleasure, improving learning and thinking abilities and self-confidence. Community reward sincludeda sense of commitment to give back information to the virtual community, promoting the profession and setting professional standards, brain storming and exposure to a wide range of views and professional experience. In a later study of discussion groups members [29] seven motives for sharing information within a group were found: 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.

Unlike information sharing, the phenomenon of file sharing usually leads to more egoistic motives. Cunningham, Alexander and Adilov [30] 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 share their files, as well, and want to enjoy the great amount of files and other contributions from their colleagues in return for their small contribution [31].

One can wonder why people write blogs supplying professional and useful information to other internet surfers. 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 [32].

Nardi et al., [33] In a study conducted on 79 subjects in the Israeli's Interdisciplinary Center (IDC) it was found that people open and hold blogs in order to express their selves and ease their loneliness [34]. Efimova [35] found similar results in her study. Nov [36] 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 [37] had similar findings in their research.

The Technology Acceptance Model (Tam)

The Technology Acceptance Model (TAM) [38] extends the theory of reasoned action [39] and

adopts 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) and Perceived ease-of-use (PEOU). As indicated in figure 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.
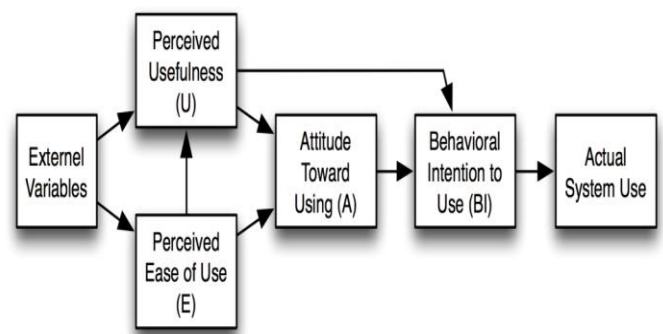

Figure 1: The Technology Acceptance Model (Davis, 1989).

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 [40].

In this research, the research model was built based on the TAM model that was adapted to the research topic, which is the use of Facebook 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 within Facebook.

Method

This research was held among Facebook users using a convenience sample of 150 participants, 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. All participants agreed to take a part in the research without any benefit.

Research Model and Hypotheses

The model for this research (Fig. 2) is an extension of the TAM model using the TRA model, adapted to the Facebook word-of-mouth activities.
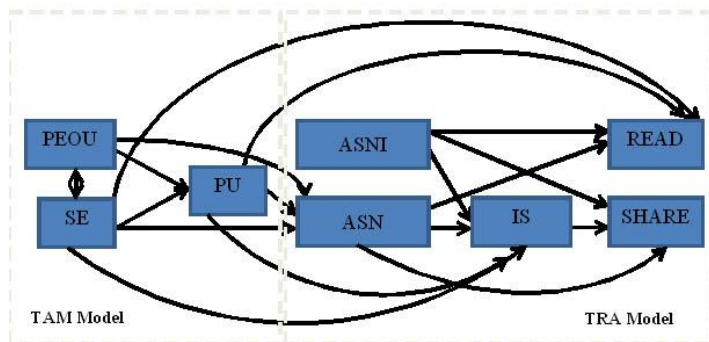

Figure 2: The research model

Independent variables:
- PEOU-Perceived Ease of Use
- SE-Self-Expressiveness
- ASNI-Attitude towards the Social Network commercial Information

Mediator variables:
- PU-Perceived Usefulness
- ASN-Attitude towards the Social Network
- IS-Intention to Share commercial information

Dependent variables:
- READ-Reading of information (passively)
- SHARE-Sharing of commercial information (actively)

The model hypothesesthat will be discussed in this paper are the Cross TMA model -TRA model hypotheses, as each of the models separately has wide literature support already:

H1: Perceived Ease of Use (PEOU) positively affects Attitude towards the Social Network (ASN)
H2: Self-Expressiveness (SE) positively affects Reading of information (READ)
H3: Self-Expressiveness (SE) positively affects Intention to Share commercial information (IS)

H4: Perceived Usefulness (PU) positively affects Reading of information (READ)
H5: Perceived Usefulness (PU) positively affects Intention to Share commercial information (IS)
H6: Self Expressiveness (SE) positively affects Attitude towards the Social Network (ASN)
H7: Perceived Usefulness (PU) positively affects Attitude towards the Social Network (ASN)

Results

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

Table 1 displays the averages and standard deviations of the model's variables.

Table 1: 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

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 figure 2. 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 3 depicts the structural model of this study.
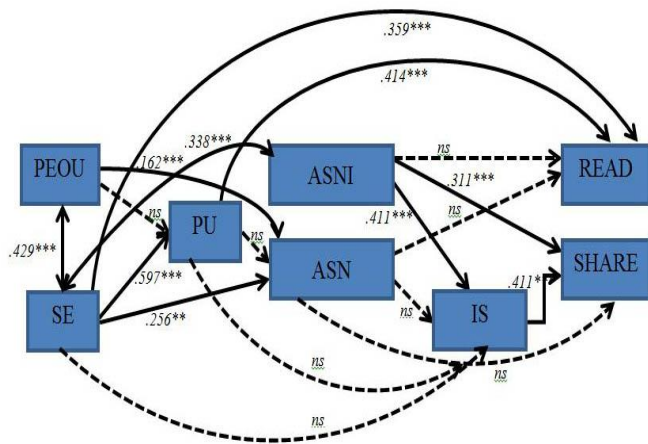
Note: *: $p \leq .001$, **: $p \leq .01$, ***: $p \leq .05$. ns: Not Significant

Figure 3: Structural model

Below is the examination of the research hypotheses:

H1: Perceived Ease of Use (PEOU) positively affects Attitude towards the Social Network (ASN)

The findings indicated in figure 3 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 H1 was **supported**.

H2: Self-Expressiveness (SE) positively affects Reading of information (READ)

The findings indicated in figure 3 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 H2 was **supported**.

H3: Self-Expressiveness (SE) positively affects Intention to Share commercial information (IS)

The findings indicated in figure 3 indicate that there is no significant effect of Self-Expressiveness (SE) on the Intention to Share commercial information (IS). Thus, hypothesis H3 was **not supported**.

H4: Perceived Usefulness (PU) positively affects Reading of information (READ)

The findings indicated in figure 3 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 H4 was **supported**.

H5: Perceived Usefulness (PU) positively affects Intention to Share commercial information (IS)

The findings indicated in figure 3 indicate that there is no significant effect of Perceived Usefulness (PU) on the Intention to Share commercial information (IS). Thus, hypothesis H5 was **not supported**.

H6: Self Expressiveness (SE) positively affects Attitude towards the Social Network (ASN)

The findings indicated in figure 3 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 H6 was **supported**.

H7: Perceived Usefulness (PU) positively affects Attitude towards the Social Network (ASN)

The findings indicated in figure 3 indicate that there is no significant effect of the Perceived Usefulness (PU) on the Attitude towards the Social Network (ASN). Thus, hypothesis H7 was **not supported**.

Discussion

This research investigated 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) [41] and the theory of reasoned action (TRA) [39] were 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 3, 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 [42, 43].

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 3, 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 [38], 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 [44].

The effect of perceived usefulness and perceived ease of use was tested in many researches and there were contradicting results. For instance, Davis [38] found that usefulness had stronger influence compared to ease of use, but Adams, Nelson and Todd [42] from the other end found that ease of use is more influential than usefulness. Agarwal and Prasad [45] 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 [46] 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 3, 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 [47].

The effect of self-expressiveness on the attitude toward the action had contradicting results. In some cases this direct effect was found to be insignificant but in other cases it was found to be significant [48]. 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 [43,48].

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 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 [49]. This is specifically important for the users as Facebook is becoming a replacement platform for the friendship infrastructure for many people.

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 3, 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) [48], 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 [48, 50], the only predictor of the actual activity was the intention to act, as suggested by the theory of reasoned action (TRA).
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 [48] 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 [44]. 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 3, 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 3, 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 [48, 50]. 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 [51] 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.

Implications for Managers

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.

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.

Limitations and Further Research

This research has several important limitations. The limitations of this study concern the research design, measurement, and the sample. The first limitation of this research is concerning the participants age. The average age of a Facebook user is 38 [52] and the average age of the participants in this research 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 [53, 54] is not represented at all in this study.

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.

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 [55].

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.

The researchers believe 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 [56].

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