

2014

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Recommended Citation

Silvius, A.J. Gilbert and Kavaliauskaite, Ruta (2014) "Value of Online Social Networks from the Perspective of the User," *Journal of International Technology and Information Management*: Vol. 23 : Iss. 2 , Article 1. Available at: <https://scholarworks.lib.csusb.edu/jitim/vol23/iss2/1>

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Value of Online Social Networks from the Perspective of the User

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ABSTRACT

This paper reports a study on the willingness to pay for the services of online social networks (OSNs). The relevancy of the question is derived from indications that these OSNs are considering charging their users for more advanced services in order to develop from the advertisement-based business model.

The value of these OSNs has been studied mainly from the perspective of the advertiser. This paper reports a study into the value of OSNs from the user perspective. More specifically, the study investigated the willingness to pay for the use of the OSNs Facebook, Twitter and LinkedIn, and the factors influencing this willingness.

Based upon a survey amongst 202 Dutch users of OSNs, we found what percentage of users would be willing to pay for the three social networks in our study and we tested the value they would be willing to attribute to the services. We also tested the correlation between the willingness to pay and the eight potential factors of influence that were derived from literature.

The contribution the study makes is that it provides insight in the factors influencing the value of OSNs from the perspective of the users. For the organizations behind social media, this is useful information in developing new business models that include charging users for specific services.

INTRODUCTION

Over the last 10 years, the use of online social networks (OSNs), such as MySpace, Twitter, LinkedIn and Facebook, has grown at a spectacular rate (Mislove, 2009). With now over 1.3 billion active users (Statisticbrain, 2014), Facebook should be considered as the most significant OSN, with Twitter and LinkedIn following on some distance (eBizMBA, 2014). Leading brands integrate social networks in their marketing mix and American users are reported to spend roughly a third of their time online on Facebook (Sachov, 2010). Users are so engaged in OSNs, that this tendency prompts the idea, that social networks are an inseparable part of the lifestyle and existence of these users.

The business model of OSNs relies heavily on revenues from online advertisements and sales of user data (Frommer, 2012; Kulkarni, 2013; Spotter, 2013), for example, Facebook promises to stay free for basic services (Cochran, 2009), LinkedIn is generating 20% of its revenues from

users in the form of premium memberships (Spotter, 2013). It is suggested that in the future, users may be charged for more advanced services or an ad-free experience (Kaplan & Haenlein, 2010). These developments sparked the research project reported in this paper, in which we explore the extent to which users of Facebook, Twitter and LinkedIn would be willing to pay for their use of it.

The research questions in our study were formulated as *How much money are users and non-users of the OSNs Facebook, Twitter and LinkedIn willing to pay for the use of these OSNs?* and *Which factors influence this willingness to pay for use of the OSNs?* As previous studies on the willingness to pay for OSNs are scarce, this study is of an explorative nature, deploying a review of relevant literature and data collection using a questionnaire to a sample of 202 respondents in the Netherlands.

The next paragraph reports the literature review on the factors that influence willingness to pay. Based upon the findings of this review, we constructed the conceptual model and derived the questionnaire for our study. We applied this questionnaire to a sample of 202 respondents in the Netherlands. The findings section of this paper reports the results and analysis of this study. The paper concludes with the formulation of potential hypothesis on the willingness to pay for the use of the OSNs, and the factors influencing this willingness.

LITERATURE REVIEW

As the study was performed in the Netherlands, we shall first discuss the use of OSNs in the Netherlands and the reason that OSN use in the Netherlands may be a relevant indicator for the development of OSN use in other countries and regions. Following this section, we will zoom in on the literature discussing willingness to pay for the use of OSNs and on the factors that may influence this willingness.

Social network use in the Netherlands

The Netherlands is a social networking country. In a recently published study by the British Office for National Statistics, the Netherlands tops the list, with 65% of the population active on one or more OSNs (Office for National Statistics, 2013). Also in the Netherlands, Facebook, Twitter and LinkedIn are the top three most used OSNs, with the local former market leader Hyves being diminished to a marginal position in the last three years (Oosterveer, 2013).

In a study of social networking usage in the Netherlands, Mike Read, senior vice-president of ComScore Europe stated, that “Another interesting facet to this market is that the Netherlands has the highest Internet penetration worldwide for two of the other key global social networking sites, Twitter and LinkedIn. The Netherlands is in many ways a nexus of global social networking behaviour” (European Travel Commission, 2011). It is for this reason that we believe that our study bears relevance also for OSN use in other countries and regions.

Willingness to pay

The impressive use and growth of OSNs can create an illusion, because economic doctrines states that things, which are complimentary usually are used unlimited, without thinking of their real value. Technological writer, Leigh Beaton claims that willingness to pay for social media doesn't depend on such parameters as the amount of friends, social circles or time spent on networks, and adds that the main reason why social media is such a phenomenon is because it is free of charge.

According to Blanchard (2011), the value, which every individual attaches to social network, depends on lifestyle, needs, budget, habits, cultural differences, online engagement patterns and degree of emotional investment in their social media accounts. This complements Dutta's (2010) opinion, that each of these networks satisfy different human needs: to meet new people and to strengthen existing relationships people use Facebook, in order to share the ideas users are choosing Twitter and for more sector-specific communities with professional competence and recognition, tools such as LinkedIn and Twitter are more applicable.

Another case, which gives very similar conclusions about the possible evaluation, is social network Ning. After this OSN made their free account holders to pay in average about \$25 per month, 1/5 of their users agreed to pay. Ning CEO Jason Rosenthal confirmed that company “debunked the myth that people think everything should be free” (Valentino-DeVries, 2011). Also, he highlighted that people will pay only for differentiated service.

So, different profiling in terms of users segmentation suggests different value attached and corresponding significance. For example, people who are engaged in LinkedIn social network are willing to pay more for their account and necessary access to their connections, which are relevant for their carriers and professional knowledge, than people who have Facebook or Twitter account just for the private use. The fact that LinkedIn successfully charged its users for certain ‘premium’ services (Spotter, 2013), supports this hypothesis.

Influencing factors

Based on a review of opinions and views on factors that may influence the perceived monetary value of social media (for example, Hampton et al., 2012; European Travel Commission, 2011; Makkonen et al., 2011), we concluded that these factors represent two groups of factors: Usage factors (such as motivation for use, role of the user, number of social connections and frequency of use) and Personal factors (Such as gender, age, financial stability and level of education). The following section describes the potential factors of influence, grouped in Usage factors and Personal factors.

Usage factors

1. *Motivation*

The Pew Research Center's Internet and American Life Project study (Hampton et al., 2012) released findings that the most common motivations users use social networks, are: (1) to connect with current friends; (2) to connect with family; (3) to connect with an old

friends; (4) to connect with others with shared interests; (5) to meet new friends; (6) to read statements by public figures; (7) to find dating partners; (8) to accomplish work tasks.

2. *Role*

A recent study by ComScore (European Travel Commission, 2011) revealed the most common kinds of roles users take in social media. Qualifications are dependent on time spent, engagement and activities performed on social networks. Users can be divided into 6 subgroups: (1) creators (posting, uploading, publishing); (2) joiners (visiting, maintain profile); (3) critics (posting, commenting, contributing); (4) conversationalists (posting, updating, chatting); (5) collectors (using feeds, tagging, voting); (6) spectators (reading, listening, watching).

3. *Number of friends/followers/connections*

A study by Hampton et al. (2012) disclosed the relationship, that the more friends people have on Facebook, the more they are active on the network and the more they spend time on the internet. Based upon this conclusion, we generalize this relationship to the other OSNs in our study. For LinkedIn the term friends relates to connections, and for Twitter to followers.

4. *Frequency of use*

Researchers argue, that the time spent on the networks is greatly associated with frequency of visiting and the engagement in network activities. Based upon this we assume a relationship between the frequency the user makes use of the social network and his/hers willingness to pay.

Personal factors

1. *Gender*

A study by Georgetown University's Center for Social Impact Communication and Ogilvy Public Relations Worldwide (2011) revealed that men and women use OSNs differently and in different frequencies. In general, several researchers have found that women tend to use OSNs more than men and for different and more social purposes, therefore gender could have an influence on willingness to pay.

2. *Age*

Applying the findings of Makkonen et al. (2011), It can be stated that the younger the person is the lower his willingness and ability to pay for some sort of service appears to be (*ceteris paribus*). At the same time, in contradiction, another outlook may be right, that younger people are more engaged and used to social media networks, and this may mean, they are ready to pay for their access.

3. *Financial Stability*

This research presumes that people will apply not only cost-benefit analysis approach in order to evaluate the social media networks, but also, their perception will be based on the method of willingness and ability to pay. According to Einhorn (1995), "richer" users

would have a higher willingness to pay, because they have more resources, than “poor” users. who lack the funds to pay.

4. *Level of education*

Making an assumption that education level is positively correlated with personal income, then the perceived financial stability and, particularly the amount of person's disposable income, may have an effect on the overall willingness to pay for the proposed service.

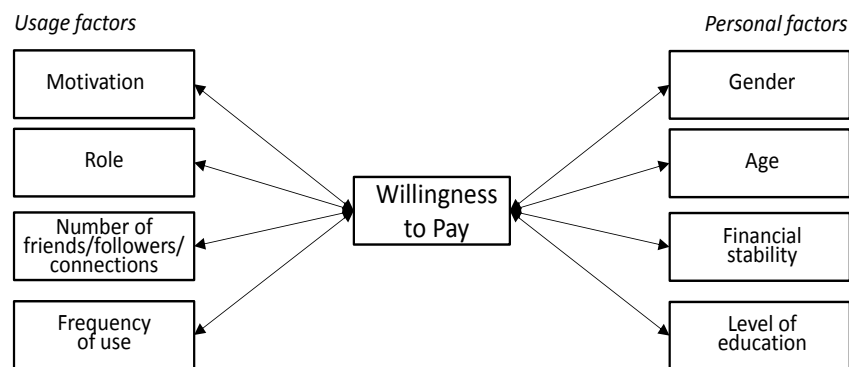
Based upon our review of the relevant literature, it is expected that each of these factors has a potential effect on the willingness to pay. For that reason, each of these factors are included in the conceptual model of our study that is presented in the following section.

RESEARCH DESIGN

Conceptual model

Based on the influencing factors identified in this previous section, we constructed the following conceptual model for our empirical exploration of the willingness to pay.

Figure 1. Conceptual model of the study.



Based on the literature review, we expected to find certain relationship between the influencing factors and the willingness to pay for the social networks. For example, we assume that people with higher education level, greater incomes and presumably older are willing to spend more money. Moreover, assuming that adherence plays a role in value perception, the usage factors should be very attached to amount of money one is willing to pay. We expect the outcome to be the more people use the more they are ready to pay. With regards to the motivation of using OSNs, we expect that professional use will be more essential and valuable than just a personal use.

Methodology

Given the scarcity of previous work on willingness to pay for OSNs, our study is of an explorative nature. We selected a qualitative survey as our primary data collection strategy and

based the questionnaire on the conceptual model as was developed in our literature review. The questions of the questionnaire were mostly of qualitative nature, using an answering scale with predetermined statements from which the respondents had to choose.

The target population for this research was defined as all people that are familiar with OSNs and that have an opinion in this matter. As the study was done in the Netherlands, all respondents are Dutch residents. Respondents were chosen by taking a non-probability sample, the sample was chosen by using a convenience sampling method. All the respondents were approached through personal and business networks of the authors. Given the explorative nature of the study, this sampling method is appropriate (Schreuder et al., 2001) and is not likely to damage the usefulness of the results from the study. Data collection was done partly through a self-administrated web survey and partly through personal collection.

Analysis

The analysis of the survey data was conducted using SPSS and Microsoft Excel programs. All the information, graphs, and tables, which will be presented in this part of the report, are originally made using the raw file of gathered survey's data. First of all, the main research question, willingness to pay for OSNs, will be analyzed from the data. After that, the influence of the usage and personal factors, as identified in the conceptual framework, will be analyzed. Considering the nature of our data, the Pearson Correlation test was performed (Pallant, 2007) to explore the potential influence of usage and personal factors on the willingness to pay.

FINDINGS

Respondents

In the sample, 54% of the respondents was male and 46% female. The average age of the respondents was 40.6 years old. For further analysis, the age of the respondents was coded into 6 classes: 1-14, 15-28, 29-42, 43-56, 57-70, and 71-84 years. As appears from the frequency table (Table 1), about a third of the respondents are between 29 and 42 years of age. The younger group accounts for roughly a quarter of the respondents.

Table 1: Age of the respondents.

| | Frequency | Percent | Cumulative Percent |
|-------|-----------|---------|--------------------|
| 1-14 | 1 | .5 | .5 |
| 15-28 | 52 | 25.7 | 26.2 |
| 29-42 | 65 | 32.2 | 58.4 |
| 43-56 | 48 | 23.8 | 82.2 |
| 57-70 | 28 | 13.9 | 96.0 |
| 71-84 | 8 | 4.0 | 100.0 |
| Total | 202 | 100.0 | |

The survey also contained the question on whether the respondent had accounts on the OSNs in the study. In our sample, 92.1% of the respondents had a Facebook account, 41.6% a Twitter account and 56.7% a LinkedIn account. These numbers are in line with the penetration of these networks in the Netherlands.

The majority of the respondents (82.1%), had a higher education: 46% on university level and 36.1% on college level (Table 2). Compared to the average of the Dutch population, the sample was biased towards high education. This bias may be due to the profile of social media users and/or due to the fact that many students were approached to participate in the study.

Table 2: Educational levels of the respondents.

| | Frequency | Percent | Cumulative Percent |
|-----------------|-----------|---------|--------------------|
| No education | 1 | .5 | .5 |
| Primary | 8 | 4.0 | 4.5 |
| School graduate | 27 | 13.4 | 17.8 |
| College | 73 | 36.1 | 54.0 |
| University | 93 | 46.0 | 100.0 |
| Total | 202 | 100.0 | |

Regarding the financial situation of the respondents, the respondents were not asked to provide exact numbers, but to assess their income as low, middle or high. Table 3 presents the results of the respondents.

Table 3: Income levels of the respondents.

| | Frequency | Percent | Cumulative Percent |
|--------------|-----------|---------|--------------------|
| Low | 15 | 7.4 | 7.4 |
| Lower/middle | 34 | 16.8 | 24.3 |
| Middle | 78 | 38.6 | 62.9 |
| Upper/middle | 60 | 29.7 | 92.6 |
| High | 15 | 7.4 | 100.0 |
| Total | 202 | 100.0 | |

From this table it shows that the majority of respondents think that they have middle or upper middle incomes, 38.6% and 29.7% respectively. This represents the normal distribution and the official income level of society.

Willingness to pay

To question about the willingness to pay was designed to also test the value attributed to this willingness. When a respondent indicated that he/she was willing to pay for the use of Facebook, Twitter or LinkedIn, we asked their willingness to pay resp. 1, 2, 5, 10, 20 or 50 euros per month.

The last value marked to pay was considered as a limit to the value attributed. The results of the willingness to pay are summarized in Table 4.

Table 4: Value indication of the willingness to pay for use of the social networks.

| | Facebook | | | Twitter | | | Linkedin | | |
|-------------|-----------|--------|-------------|-----------|--------|-------------|-----------|--------|-------------|
| | Frequency | Perct. | Cum. Perct. | Frequency | Perct. | Cum. Perct. | Frequency | Perct. | Cum. Perct. |
| €50 / month | 1 | .5 | .5 | 0 | 0 | 0 | 0 | 0 | 0 |
| €20 / month | 5 | 2.5 | 3.0 | 2 | 1.0 | 1.0 | 6 | 3.0 | 3.0 |
| €10 / month | 11 | 5.4 | 8.4 | 5 | 2.5 | 3.5 | 4 | 2.0 | 5.0 |
| €5 / month | 8 | 4.0 | 12.4 | 2 | 1.0 | 4.5 | 10 | 5.0 | 10.0 |
| €2 / month | 10 | 5.0 | 17.4 | 3 | 1.5 | 6.0 | 9 | 4.5 | 14.5 |
| €1 / month | 14 | 6.9 | 21.3 | 5 | 2.5 | 8.5 | 9 | 4.5 | 19.0 |
| €0 / month | 153 | 75.7 | 100.0 | 185 | 91.5 | 100.0 | 164 | 81.0 | 100.0 |
| Total | 202 | 100.0 | | 202 | 100.0 | | 202 | 100.0 | |

Table 4 shows that 75.7% of the respondents are not willing to pay for the use of Facebook. The remaining 24.3% are ready to pay at least 1 euro per month, with 8,4% of respondents willing to pay at least 10 euro per month. For Twitter, the willingness to pay scores lower. 91.5% Of the respondents indicated that they are not willing to pay anything for the use of the network. The remaining 8.5% are ready to pay at least 1 euro per month, with 3,5% of respondents willing to pay at least 10 euro per month. There were no users who were willing to pay more than 20 Euros per month.

For LinkedIn, 81% of respondents are not willing to pay for the use of the network. Of the 19% that are ready to pay at least 1 euro per month, 5% are willing to pay at least 10 euro per month.

Influence of usage factors

Motivation

The first possible relationship between usage and the willingness to pay, was expected in the motivation for having an OSN account. The question provided 8 possible motivations of having an account. They were: to connect with (1) current friends, (2) family, (3) old friends, (4) others with shared interests, (5) to meet new friends, (6) to read statements by public figures, (7) to find dating partner, (8) to accomplish working tasks. On this question, multiple answers/motivations were allowed. Table 5 shows the motivations provided by the respondents.

Table 5: Motivations for the use of the OSN.

| Motivation | Facebook | | Twitter | | LinkedIn | |
|--|-----------|--------|-----------|--------|-----------|--------|
| | Frequency | Perct. | Frequency | Perct. | Frequency | Perct. |
| to connect with current friends | 160 | 79% | 32 | 16% | 41 | 20% |
| to connect with family | 160 | 79% | 13 | 6% | 14 | 7% |
| to connect with old friends | 139 | 69% | 14 | 7% | 35 | 17% |
| to connect with others with shared interests | 54 | 27% | 41 | 20% | 66 | 33% |
| to meet new friends | 38 | 19% | 8 | 4% | 11 | 5% |
| to read statements by public figures | 10 | 5% | 50 | 25% | 10 | 5% |
| to find dating partners | 7 | 3% | 2 | 1% | 3 | 1% |
| to accomplish working tasks | 22 | 11% | 25 | 12% | 73 | 36% |

From this table, the different use of the three networks shows. Facebook is mostly used to connect with friends or family, which indicates a more ‘private’ use. The usage of LinkedIn on the other hand, shows a more ‘professional’ use with accomplishing working tasks, connecting to others with shared interests and (also) connecting with friends, as most important reasons. Twitter shows another pattern, in which reading statements of public figures and connecting to others with shared interests are the most important motivations. All three have OSNs have in common that finding dating partners is the less mentioned motivation for using the networks. Regarding the relationship of the motivations and the willingness to pay, the correlations appeared to be weak for all three networks.

For Facebook, the motivations with the highest correlation coefficient were: to connect with the current friends (correlation coefficient negative 0.129) and to connect with old friends (correlation coefficient negative 0.316). The negative correlations imply that people who have these reasons for having an account in Facebook are less inclined to pay for the services. The overall correlation of motivation and willingness to pay turned out to be insufficient (0.05 respectively) to declare any relationship between these two variables among the Facebook users sample.

For Twitter, the motivations with the highest correlation coefficient were: to connect with family (positive 0.137) and to find dating partner (negative 0.259). The overall correlation of motivation and willingness to pay was 0.0055, indicating absolutely no significant relationship.

For LinkedIn, the motivations with the highest correlation coefficient were: to connect with others with shared interests (negative 0.108) and to read statement of public figures (negative 0.185). This means, that people who had these reasons for using the network were not comfortable by paying money for the access. The overall correlation coefficient for willingness to pay 0.022, which means no relationship.

In conclusion, we found no significant relationship between the motivation of using the OSNs and the willingness to pay for the use of them.

Role

An our literature review indicated, the willingness to pay may be influenced by the kind of role users take on the OSN. Based on the study by ComScore (European Travel Commission, 2011), the questionnaire provided specific descriptions of 6 different roles: (1) creator, (2) joiner, (3) critic, (4) conversationalist, (5) collector, and (6) spectator. Table 6 presents the willingness to pay of the different user roles.

Table 6: Roles of the OSN users and their willingness to pay.

| Frequency | Facebook | | | Twitter | | | LinkedIn | | |
|-------------------|----------------|-----|-------|----------------|-----|-------|----------------|-----|-------|
| | Willing to pay | | Total | Willing to pay | | Total | Willing to pay | | Total |
| | No | Yes | | No | Yes | | No | Yes | |
| No account | 15 | 1 | 16 | 114 | 4 | 118 | 83 | 5 | 88 |
| Creator | 23 | 12 | 35 | 8 | 5 | 13 | 3 | 6 | 9 |
| Joiner | 16 | 6 | 22 | 4 | 2 | 6 | 21 | 18 | 39 |
| Critic | 13 | 5 | 18 | 5 | 1 | 6 | 5 | 2 | 7 |
| Conversationalist | 31 | 17 | 48 | 8 | 2 | 10 | 6 | 2 | 8 |
| Collector | 1 | 0 | 1 | 2 | 0 | 2 | 4 | 1 | 5 |
| Spectator | 54 | 8 | 62 | 44 | 3 | 47 | 42 | 4 | 46 |
| Total | 153 | 49 | 202 | 185 | 17 | 202 | 164 | 38 | 202 |

The majority of Facebook users appeared to be spectators or conversationalists, with 33.3% and 25.8% respectively. Creators and conversationalist were most willing to pay for the service. The Pearson Correlation test did not show significant relationship between the roles users take on Facebook and their willingness to pay.

The majority of Twitter users appeared to be a spectator (56%). The correlation between user role of Twitter and willingness to pay is positive 0.123. This means a slight correlation. However, this correlation coefficient is not sufficient to approve the assumption that there is strong relationship between these two variables.

The most indicated roles of LinkedIn users are spectator (40.4%) and joiner (34,2%), of which the joiner role shows a high percentage of willingness to pay. However, using the Pearson Correlation test, we found no significant relationship between user role and willingness to pay. In conclusion, also for the user role on the OSNs, we found no significant relationship with the willingness to pay for the use.

Number of friends/followers/connections

Another expectation on the influence of usage factors, was that the number of friends, followers or connections may have an effect on the willingness to pay for social media. The respondents were ask to choose one of the range in which their approximate number of friends, followers or connections happen to be. The possible intervals were in 50 units width, so there were 11 intervals from 0 to more than 500 friends. Table 7 presents the results of our survey on this factor and the willingness to pay.

Table 7: Number of friends / followers / connections and the willingness to pay.

| # of friends / followers / connections | Facebook | | | Twitter | | | LinkedIn | | |
|--|----------------|-----|-------|----------------|-----|-------|----------------|-----|-------|
| | Willing to pay | | Total | Willing to pay | | Total | Willing to pay | | Total |
| | No | Yes | | No | Yes | | No | Yes | |
| 0 | 15 | 1 | 16 | 114 | 4 | 118 | 83 | 5 | 88 |
| 1-50 | 27 | 1 | 28 | 54 | 1 | 55 | 34 | 1 | 35 |
| 51-100 | 28 | 3 | 31 | 6 | 1 | 7 | 12 | 2 | 14 |
| 101-150 | 24 | 3 | 27 | 2 | 2 | 4 | 10 | 4 | 14 |
| 151-200 | 13 | 5 | 18 | 4 | 2 | 6 | 7 | 4 | 11 |
| 201-250 | 7 | 7 | 14 | 1 | 1 | 2 | 7 | 4 | 11 |
| 251-300 | 8 | 6 | 14 | 0 | 1 | 1 | 3 | 3 | 6 |
| 301-350 | 7 | 4 | 11 | 2 | 1 | 3 | 1 | 1 | 2 |
| 351-400 | 2 | 2 | 4 | 0 | 1 | 1 | 1 | 3 | 4 |
| 401-450 | 3 | 5 | 8 | 0 | 0 | 0 | 0 | 1 | 1 |
| 451-500 | 3 | 6 | 9 | 0 | 0 | 0 | 2 | 3 | 5 |
| >500 | 16 | 6 | 22 | 2 | 3 | 5 | 4 | 7 | 11 |
| Total | 153 | 49 | 202 | 185 | 17 | 202 | 164 | 38 | 202 |

On average, the users of Facebook in our sample had between 151 and 200 friends. The highest frequency was scored by the interval of between 51 to 100 friends (16.7%), and the intervals next to this, so the majority of respondents were having 1 to 200 friends on (accumulative 55,6%). From table 7 it also shows that people with a higher number of friends are more willing to pay for the use of the network. The Pearson correlation coefficient confirmed the expectation of a significant relationship, positive .208 significant at the 0.01 level (2-tailed), between number of Facebook friends and willingness to pay.

For Twitter, the highest frequency was scored by the interval of between 1 to 50 followers (65,5%). Also here, the Pearson correlation coefficient, positive .251 significant at the 0.01 level (2-tailed), shows the existence of a significant relationship between the number of Twitter followers amount and willingness to pay.

For LinkedIn, the majority of users have 1 to 150 connections (55.3%). Also here the willingness to pay seems to grow with the number of connections and this is confirmed by the Pearson correlation coefficient: positive .360 significant at the 0.01 level (2-tailed).

In conclusion, we found for all three networks a significant positive correlation between the number of friends / followers / connections and the willingness to pay. The correlations found are not very strong, but the fact that they turned out to be significant implies a relationship.

Frequency of use

Another assumption regarding the usage factors was that frequency of visiting the pages of social media would influence the willingness to pay. The assortment of the possible answers was given into ranges: 0, 1-30, 31-60, 61-90, 91-120, or more than 120 visits per month. The logic behind was that the user might be accessing the network from 1 time a day to 1 time per month, 1 time a

day or 2 time a day and so on, calculating the perceived average. Table 8 shows the findings of our survey on this factor.

Table 8: Frequency of use and the willingness to pay.

| Frequency of use | Facebook | | | Twitter | | | LinkedIn | | |
|------------------|----------------|-----|-------|----------------|-----|-------|----------------|-----|-------|
| | Willing to pay | | Total | Willing to pay | | Total | Willing to pay | | Total |
| | No | Yes | | No | Yes | | No | Yes | |
| 0 | 18 | 1 | 19 | 133 | 4 | 137 | 83 | 0 | 83 |
| 1-30 | 78 | 6 | 84 | 36 | 1 | 37 | 21 | 6 | 27 |
| 31-60 | 23 | 8 | 31 | 12 | 2 | 14 | 28 | 12 | 40 |
| 61-90 | 6 | 12 | 18 | 2 | 4 | 6 | 6 | 3 | 9 |
| 91-120 | 8 | 6 | 14 | 2 | 2 | 4 | 8 | 6 | 14 |
| >120 | 20 | 16 | 36 | 0 | 4 | 4 | 18 | 11 | 29 |
| Total | 153 | 49 | 202 | 185 | 17 | 202 | 164 | 38 | 202 |

From this table it is visible that the most comfortable to pay for social media accounts were those who were using social media from at least 4 times per day (>120 times per month).

Looking at the different social media networks separately and the exact value attached, the same tendencies are visible for all three networks. Twitter users were more inclined to pay when they logged 3 times per day (61-90 times per month range) and more than 4 times per day (>120 times per month). LinkedIn was most valued by those, who used it once-twice per day (31-60 times per month) and more than 4 times per day (>120 times per month). The Pearson correlation method has shown significant relationship between frequency of use and the willingness to pay: positive .270 significant at the 0.01 level (2-tailed).

In conclusion, also for the factor frequency of use, we found a weak but significant positive correlation with the willingness to pay.

Influence of personal factors

Gender

In our study, about 33% of men were willing to pay for the social networks and a very similar percentage of 31.2% of women. This difference does not seem very significant. The Pearson correlation revealed, that no significant relationship between age and willingness to pay could be demonstrated.

And although no significant relationship showed, it should be highlighted that there was an exceptional difference between men and women in the willingness to pay for LinkedIn use. Considerably, more men were willing to pay for their accounts in every section of monetary price. 21.1% of men were ready to pay for the service and only 16.1% of women saw it normal to pay for this social media account. Also, twice as more men (12.8%) were willing to pay 5, 10 or 20 Euros per month in order to receive a service than women (6.5%). It can be said that LinkedIn network is significantly more valuable for men than for women.

Facebook and Twitter both didn't show this difference between men and women regarding the willingness to pay.

Age

Regarding the relationship between age and willingness to pay and age, Table 9 shows that the most willing to pay for social media are people in relatively younger age, from 1-28 years old.

Table 9: Age and the willingness to pay.

| Age | Facebook | | | Twitter | | | Linkedin | | |
|-------|----------------|-----|-------|----------------|-----|-------|----------------|-----|-------|
| | Willing to pay | | Total | Willing to pay | | Total | Willing to pay | | Total |
| | No | Yes | | No | Yes | | No | Yes | |
| 1-14 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 15-28 | 28 | 24 | 52 | 42 | 10 | 52 | 36 | 16 | 52 |
| 29-42 | 50 | 15 | 65 | 60 | 5 | 65 | 54 | 11 | 65 |
| 43-56 | 43 | 5 | 48 | 46 | 2 | 48 | 39 | 9 | 48 |
| 57-70 | 24 | 4 | 28 | 28 | 0 | 28 | 27 | 1 | 28 |
| 71-84 | 8 | 0 | 8 | 8 | 0 | 8 | 7 | 1 | 8 |
| Total | 153 | 49 | 202 | 185 | 17 | 202 | 164 | 38 | 202 |

In this age range, about 33% of the respondents indicate that they would be willing to pay at least 1 euro per month for the different networks. In the later age groups this diminishes to 16% (29-42 age group), 11% (43-56 age group), 6% (57-70 age group) and 4% (71-84 age group).

The pattern that older people are less willing to pay for the use of OSNs than younger users proved to be significant in the Pearson correlation test: a negative 0.278 correlation, significant at the 0.01 level (2-tailed).

Financial stability

For the factor financial stability, the assumption was made that upper middle income respondents were ready to pay the highest prices. The Pearson correlation test shows that there are slight 0.10 correlations between the perception of income level and the willingness to pay. However, in our study, this correlation did not prove to be significant.

Level of education

The last factor of influence considered was the level of education. In our sample, the majority of the respondents had rather high education: 46% of respondents had university education and 36.1% are college graduates. In total, there were a total of 82.1% of the respondents had Higher Education.

Table 10: Level of education and the willingness to pay.

| Level of education | Facebook | | | Twitter | | | Linkedin | | |
|--------------------|----------------|-----|-------|----------------|-----|-------|----------------|-----|-------|
| | Willing to pay | | Total | Willing to pay | | Total | Willing to pay | | Total |
| | No | Yes | | No | Yes | | No | Yes | |
| No education | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Primary | 6 | 2 | 8 | 8 | 0 | 8 | 8 | 0 | 8 |
| School graduate | 21 | 6 | 27 | 24 | 3 | 27 | 24 | 3 | 27 |
| College | 55 | 18 | 73 | 68 | 5 | 73 | 61 | 12 | 73 |
| University | 70 | 23 | 93 | 84 | 9 | 93 | 70 | 23 | 93 |
| Total | 153 | 49 | 202 | 185 | 17 | 202 | 164 | 38 | 202 |

The Pearson correlation test indicated a very weak positive 0.121 correlation. However, the correlation did not show to be significant.

CONCLUSION

This paper reported a study on the willingness to pay for the services of social networks, such as Facebook, Twitter and LinkedIn. The relevancy of the question is derived from the observation that certain OSNs are seeking other revenue streams, next to advertisement and selling user data. One of the options that these OSNs are considering is charging their users for more advanced services in order to develop from the advertisement-based business model.

In an explorative study amongst 202 Dutch users of Facebook, Twitter and/or LinkedIn, we found that the willingness to pay for OSNs is not overwhelming, but yet existing. For Facebook, 75.7% of the respondents are not willing to pay for use, with the remaining 24.3% willing to pay at least 1 euro per month. 8,4% Of respondents were willing to pay at least 10 euro per month. For Twitter, the willingness to pay scores lower. 91.5% Of the respondents indicated that they are not willing to pay anything for the use of the network. The remaining 8.5% are ready to pay at least 1 euro per month, with 3,5% of respondents willing to pay at least 10 euro per month. For LinkedIn, 81% of respondents are not willing to pay for the use of the network. Of the 19% that are ready to pay at least 1 euro per month, 5% are willing to pay at least 10 euro per month

Based on earlier studies into the use of OSNs, we identified eight factors that potentially influence this willingness to pay. These factors relate to the use of the OSNs ('Usage' factors: motivation, role of the user, number of friends and frequency of use) or to the person of the user ('Personal' factors: gender, age, financial stability and level of education). From our study it appeared that three of these factors significantly correlated to the willingness to pay: number of friends/followers/connections, frequency of use and age. The correlations found were not strong, but still provide an indication of the factors that influence the willingness to pay for the use of OSNs.

DISCUSSION

In our study, the factors that related positively with the willingness to pay, intensity of use (indicated by number of friends/followers/connections) and frequency of use, may not be surprising. The fact that age appeared as a negative correlation may also not be surprising, given the popularity of social networks amongst young people. However, Oosterveer (2013) indicates

that the group of older users is growing. Perhaps more surprising than the influences were that appeared, are the relationships that did not appear as significant. For example, the motivation to have a Facebook, Twitter or LinkedIn account and the role the user takes were expected to have an influence. Another remarkable finding from the study is that the factors influencing the willingness to pay were consistent for all three OSNs. This strengthens the indication that these three factors, number of friends/followers/connections, frequency of use and age, are indeed the most relevant factors related to the willingness to pay.

The contribution our exploration makes is that it provides insight in the factors influencing the value of OSNs from the perspective of the users. For the organizations behind these social networks, this is useful information in developing new business models that include charging users for specific services. The academic contribution of our study is that it adds the user perspective to the debate on the value of social media, where this value is mostly approached from companies and organizing advertising on OSNs.

A limitation of the study is provided by the sample size and the fact that the study was aimed at Dutch users. However, considering the significant penetration of social media usage in the Netherlands, the results still may be considered as an indication of the opinion of a broader audience.

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