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PROMOTION STRATEGY FOR ONLINE TASK-MANAGEMENT APPLICATIONS ON EXAMPLE OF SOFTWARE VENDORS TARGETED AT SMALL BUSINESS

Bachelor's Thesis

Supervisor: visiting lecturer Andrei Špiljov

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I declare I have written the bachelor's thesis independently.
All works and major viewpoints of the other authors, data from other sources of literature and elsewhere used for writing this paper have been referenced.

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ABSTRACT

The purpose for writing this paper was to determine the promotion strategy that should be used by startup companies who want to sell online task-management applications targeted at small business. The objective of this paper is to determine the combination of online media channels that startup companies need to use as the basis for their promotion strategy in order to effectively attract customers to their online applications. The problem of the research is that the general approaches to marketing may not work in some specific markets and the promotion strategy should be determined by the actual market conditions and company's stage of development. The object of research in this paper are software vendors who provide online task-management applications that are targeted at small business. The sample of software vendors who are currently present in the market is investigated. This research uses quantitative methods of analysis and it is based on the primary data collected specifically for the research objective. The measures of central tendency, frequency distribution, cross-tabulation analysis and correlation analysis are used as the primary methods to analyze the collected data. The idea behind the research was to gain knowledge that can be applied to the real market conditions. The research results suggested that the most appropriate online media channels for promotion in terms of application and effectiveness are corporate blogs, organic search and e-mails. These online media channels represent most valuable investments for startup companies in terms of allocation of limited resources and are need to be used as the base for the promotion strategy.

Keywords: promotion, software vendors, business customers, startups, online applications, online media channels

INTRODUCTION

The Internet has made it possible for many companies to create, promote, and sell digital products and services. When a new company has a good digital product to sell it also needs an effective way to reach its potential customers. The Internet enables even to small startup companies to access global markets with international audience and operate in dynamic and interconnected environment. At the same time, advances in technology are enabling consumers and business professionals a greater insight into where and how they can access information about new products and services. Startup companies need to establish their customer base and their presence on the market from the ground up. In this context, the properly developed promotion strategy becomes one of the determinant factors for a company's success.

The problem of research is that the composition of promotion strategy for company depends on internal and external factors. The internal factors are determined by the stage of company's development. The external factors are determined by the actual market conditions. The stage of company's development represent the amount of available resources in terms of people, budget and time. The actual market conditions represent the characteristics and the behavior of current players on the market. The resources available to market the product determine the combination of online media channels and the type of promotional activity that can be performed (Chaffey et al. 2006, 196). The characteristics and the behavior of current players on the market determine the level of promotional activity that should be maintained by new companies. The owner of such problem in reality is any new company that wants to start selling digital products of certain category in the Internet.

In general, the promotion strategy can be composed from such online media channels like social networks, search engines, e-mails, display advertising and corporate blogs (Stokes 2014, 521). The choice of online media channels will determine how successfully the company will attract new visitors to their website and convert them into users of their online application. The resources of startup companies are usually limited and it is not possible for them to

effectively use all available online media channels for promotion. Therefore, it is important to investigate on what online media channels to allocate limited resources to achieve effective promotion at the same time considering the characteristics and the behavior of current players on the market.

The objective of this paper is to determine the combination of online media channels that startups need to use as the basis for their promotion strategy in order to effectively attract customers to their online task-management applications targeted at small business. The idea behind this objective is to gain knowledge that can be applied to the real market conditions. There are three major stages (tasks) to be gone through for the achievement of the research objective:

1. The first stage is to investigate to what extend the selected online media channels are used for promotion by existing software vendors who provide online task-management applications targeted at small business.
2. The second stage is to determine what online media channels appears to be more effective for business customer acquisition.
3. The third stage is to suggest based on the research results what online media channels to use for promotion by new companies that want to enter the market of online task-management applications targeted at small business.

The object of research in this paper are software vendors who provide online task-management applications that are targeted at small business. The sample of software vendors is based on the selection of online task-management applications from two business (B2B) software directories. The information provided by the actual market conditions will enable to determine the online media channels that are needed to be used and the level of promotional activity that should be maintained by those new companies who want to enter the market.

This research paper is divided into three main chapters. The first chapter contains major definitions as well as description of methods for data collection and analysis that are going to be used. The second chapter describes the process of data collection and data analysis that were performed by the author. The final chapter contains results, their discussion as well as main findings and proposals.

1. DEFINITIONS AND METHODOLOGY OF RESEARCH

1.1. Definition of promotion strategy

Promotion is the one of the elements that is included in the marketing mix. The marketing mix is a well-established conceptual framework that is used by marketers for the development of marketing strategy (Chaffey et al. 2013, 51). In general, marketing mix can be comprised of different elements. The combination of elements will depend on the business size, the competition, and the primary function of the product (Leake et al. 2012, 218). There is a traditional version of the marketing mix that consist of four elements. These elements are Product, Price, Place and Promotion. There is an extended version of the marketing mix that includes three more elements to reflect the service delivery. These two versions of marketing mix are usually referred to as the 4Ps and the 7Ps. Both versions include Promotion as the element that represents the communication of existence of products and services to the current and potential customers. (Chaffey et al. 2006, 243)

The promotion strategy is determined by the objective and is influenced by the amount of resources available (Chaffey et al. 2013, 551). The resources represent the available amount of people, budget and time (Chaffey et al. 2013, 576). To achieve the objective with the resources available, the strategy should define the level of resources to be allocated at different channels of promotion (Chaffey et al. 2013, 552). Channel-specific promotional activities should be consistent with the characteristics of selected channels and the consumer usage of them (Chaffey et al. 2006, 152).

There are different types of promotional activities and online media channels that company can use for the promotion. In this paper, promotional activities are differentiated based on the type of online media channels in which they are applied. Therefore, the promotion strategy for the company will be determined by the combination of different online media

channels with specific types of activity on them. The choices of online media channels represent the tactical decisions that are needed to achieve the general objective of the promotion strategy. In the context of this research, the objective of the promotional strategy is to attract business customers to online task-management applications.

1.2. Definition of selected online media channels

There is a number of distinct online media channels in the Internet, which can be used to promote digital products. Each of these online media channels enables different types of promotional activity as well as provides different opportunities for customer acquisition. In general, the promotion can be done through such online media channels like social networks, search engines, e-mails, display advertising and corporate blogs. (Stokes 2014, 521)

Social networks represent online services where communities of people are able to communicate and share information among each other (Stokes 2014, 369). The process of communication and information sharing is specific to each social network. Social networks allow users to create personal profiles and provide detailed information about themselves (Reed 2012, 129). The usage of social networks for promotional activities allows companies to develop relationships with existing and potential customers and to build an active community around their products and services.

Search engines are used by millions of people as the primary tool for searching an information in the Internet (Stokes 2014, 230). Search engines create databases of keywords that are linked to websites. Users of search engines enter keywords relevant to their needs and receive the results from databases. There are different kinds of search results that people can see. There are organic search results and paid search results (Stokes 2014, 257). Organic search results are the primary product of search engines and comprise the majority of listings on the results pages. They are not influenced by financial payment. Paid search results represent the displaying of sponsored results alongside the organic results (Stokes 2014, 289).

The term e-mail stands for electronic mail and represents the transmission of messages over communication networks. There are many e-mail service providers that enable users to

send electronic mail messages anywhere in the world. (Stokes 2014, 432) Companies are using e-mails to deliver promotional messages and any other relevant information to their existing and potential customers. The permission to contact is important element of e-mail promotion (Reed 2012, 55). The promotional e-mails that are sent without the permission can be perceived negatively and be marked as spam.

Display advertising is the placement of promotional messages on the other websites in the Internet. Promotional messages can contain text, images, video, and audio. There are many types of promotional messages and opportunities for their placement on websites as well as different models of payment. Those parties who provide the promotional messages are called advertisers. Those parties who provide the websites for the placement are called publishers. There are platforms that bring the publishers together with advertisers. In general, the main objective of display advertising is to increase sales and brand awareness. (Stokes 2014, 294)

Corporate blogs stand for web logs, which are websites that are comprised of regularly updated content. The content is usually presented in the form of posts. Posts are displayed in chronological order, so that users can find the most recent content first. (Reed 2012, 69) The content that is provided on corporate blogs is usually related to the area of company specialization. Unlike search engines and social networks, blogs are owned by companies and therefore can be fully controlled. With the usage of blogs, it is possible to perform promotional activities in the company-controlled environment.

1.3. Definition of online applications

The two biggest drivers of change in business today are multi-device computing and cloud technologies (Sencha 2014, 1). Modern consumers expect to access application software on a wide range of devices, including desktops, tablets, and smartphones. (Sencha 2015, 1) The modern Internet enables an environment where application software can be delivered to the millions of global users through the web browsers. By using web browsers, the Internet users can navigate through data and interact with content located on web pages within websites. (Acunetix, Web Applications) Modern web technologies allow dynamic content that can be

manipulated by users according to individual preferences. Users can capture, process and store the various types of data for immediate and recurrent use. (Ibid.) These capabilities enable websites to transform the Internet browser into the interface for a variety of applications. Therefore, online applications can be defined as the web-based application software that can be accessed through the web browsers across different platforms and devices. Online applications do not require to be installed on a particular devises or platforms.

There are many different online applications on the market. Online applications can be differentiated by their primary functions. Online applications can be designed to be used in the conditions related to various business processes. These applications are specifically designed to be used by businesses of various sizes. Depending on the size of the target business customer, software vendors provide online applications that are different in terms of features that they have, complexity of usage as well as their price.

1.4. Methods of data collection

There are different methods exist that can be used to collect the data for the research. In addition to that, there are different types of data that can be collected. In general, the research can be based on primary or secondary data. The primary research is conducted when required data or information does not exist or it is not accessible and therefore needs to be specifically collected for a particular research objective. The secondary research uses existing data that have been collected for the purposes of other than the current research. (Malhotra, Birks 2007, 94)

The collection and analysis of secondary data enables to define the research problem and develop an approach to the solution. The collection and analysis of primary data enables to actually investigate and solve the research problem. Therefore, the examination of available secondary data is usually done before the collection of primary data. Both primary and secondary data may be qualitative or quantitative in nature. Qualitative data consists of narrative data that is either unstructured or summarized subjectively. Quantitative data consists of numerical data that is represented mathematically. The nature of data will define the methods of analysis that can be used in the research. (Malhotra, Birks 2007)

For the research paper, it is needed to collect the data that can provide insights on how the selected software vendors promote their online applications in the Internet environment. Due to the lack of publicly available and concentrated information regarding the marketing activities of the specific companies, it is very hard to determine the detailed promotion strategy that is used by each of the selected software vendors. Instead, it is possible to search for patterns in the behavior of all selected software vendors on the particular online media channels, which they are using for the promotion of their online applications. Patterns of behavior can be revealed on the basis of data that is publicly available on these online media channels. This data will help to determine to what extend software vendors are utilizing the selected channels for the promotion of their online applications in the Internet.

Considering all above, it is decided to conduct the research in the Internet and collect quantitative data related to the activity of each software vendor under the study across the selected online media channels. The information on blogs and social networks is available in such form that it can be gathered manually. In terms of social networks, it was decided to concentrate on Facebook, Twitter and LinkedIn as the three most popular ones (Stelzner 2015, 23). Information from such online media channels as display advertising, e-mails and search engines can be accesses with the specific research tools that are available in the Internet. For each channel, the different amount of information is expected to be found. That is determined by the characteristics of the particular online media channels.

This research is based on the information that already exists in Internet. However, the data is not available in one single place and therefore does not enable the analysis that is needed for the research. Therefore, the data should be collected manually by the author and consolidated, so that the meaningful analysis can be performed. Based on the definition of the primary data it can be concluded that the research is going to be based on the primary data collected by the author for the purposes of the specific research objective. For the purpose of the research, it was decided to collect the quantitative data. This is determined by the fact that the sample consists of a moderately large number of companies. It would be hard to collect and analyze the qualitative data for such number of companies. Therefore, quantitative data will provide more information.

1.5. Methods of data analysis

There are many possibilities to analyze the data. However, the purpose of the data analysis is to produce information that will help to solve the research problem under the study. The methods of analysis are determined by the characteristics of gathered data and the purpose of the research. For this research paper, it was decided to collect quantitative data. The analysis of quantitative data involves statistical methods. Statistical methods can be classified as univariate or multivariate (Malhotra, Birks 2007, 493).

Univariate methods are appropriate to apply for the data analysis, when there is a single measurement of each element in the sample. Univariate analysis does not deal with causes or relationships between variables and its major purpose is to describe and find patterns in the data. Univariate methods describe one variable at a time. (Malhotra, Birks 2007, 10) Multivariate methods are appropriate to apply for the data analysis, when there are two or more measurements of each element and the variables are analyzed simultaneously. Multivariate analysis enables to determine the simultaneous relationships among two or more variables. Therefore, multivariate methods are used to study more complex sets of data than what univariate methods can handle. (Ibid.)

Marketing researchers often answer the research questions based on a single variable (Malhotra, Birks 2007, 506). Therefore, many marketing research projects do not go further than the basic data analysis (Malhotra, Birks 2007, 503). The answers to the questions about a single variable can be determined by using such univariate methods as frequency distribution and the measures of central tendency. The findings from basic analysis provide the ground for conducting the multivariate analysis in order to link one variables to other variables. The links between variables can be determined by such multivariate methods as cross-tabulations and correlations. The findings from the mentioned methods of data analysis are usually displayed using tables and figures. (Ibid.)

1.5.1. Measures of central tendency

The measures of central tendency are going to be used for the data analysis in this research. The mean, median and mode measures will be used to describe and summarize the

different sets of data that were collected by the author for the sample of software vendors. The mean, or the average value, is the most commonly used measure of central tendency in data reporting (Malhotra, Birks 2007, 508). The mean is obtained by summing all the values and dividing by their total number. Disadvantage of the mean is that it can be misrepresentative due to the extreme values in the range. Extreme values are the highest and lowest values for a particular variable. The median and mode are not as affected by extreme values as the mean. The median represents the middle value. To compute the median it is needed to list all values in numerical order, that can be ascending or descending, and then locate the value that is in the center of the range. If the number of data points is even, the median is estimated as the midpoint between the two middle values by calculating their mean. (Malhotra, Birks 2007, 509) The mode represents the value that occurs most frequently among the selected range. The calculation of mode is practical when the large number of values is available. (Taylor-Powell 1996)

1.5.2. Frequency distribution and cross-tabulation analysis

The frequency distribution is used to obtain a count of the number of subjects associated with different values in the category. A frequency distribution describes one variable (category) at a time. Counts or frequencies can tell us how many times something occurred or how many subjects fit into a particular group of values. (Malhotra, Birks 2007, 506) The distribution can be calculated by listing every value of a variable and calculating the number of subjects who have the each value. However, for some variables there can be a large number of possible values with relatively few subjects having the each one. In such cases, the data analysis is problematic. To enable meaningful analysis, the data can be grouped according to appropriate ranges of values. Then, the frequencies for the groups of values are determined.

Cross-tabulation analysis can be treated as the frequency distribution on two or more sets of variables. The method is used for understanding the associations between two or more variables that are analyzed simultaneously. In cross-tabulation analysis, one variable is subdivided according to the values or categories of the other variable. (Malhotra, Birks 2007, 516) The results can be displayed in tables and figures that reflect the distribution of two or more variables across the categories. This enables to compare the associations between two or

more categories and understand how they are related to each other. It is important to note that cross-tabulation examines only associations between variables. Therefore, this method of analysis alone cannot be used to determine whether one variable causes the occurrence of the other variable.

The results (counts) in both methods can be expressed in percentage terms. Percentages serve two purposes in data presentation. They simplify the data interpretation by reducing all numbers to a range from 0 to 100. In addition, they translate the data into the form that enables relative comparisons. (Cooper, Schindler 2013, 420)

1.5.3. Correlation analysis

The correlation analysis will be used in this research paper to determine whether there is a relationship between certain variables under the study. In marketing research, the product moment correlation (r) is the most widely used statistical method to quantify the strength of an association between two continuous variables. The correlation coefficient is a single number that describes the degree of relationship between two variables. The correlation coefficient is not expressed in any unit of measurement. The correlation coefficient varies from -1.0 to 1.0. (Malhotra, Birks 2007, 575)

The correlation coefficient that equals 1.0 represents perfect positive correlation. If the correlation coefficient is positive, it means that we have a positive relationship between two variables. In this case, if one variable increases or decreases the other does the same. The correlation coefficient that equals -1.0 represents perfect negative correlation. If the correlation coefficient is negative it means that we have a negative relationship between two variables. In this case, if one variable increases the other decreases. (Cooper, Schindler 2013, 469)

With this type of analysis it is not possible to determine whether one variable causes another (Cooper, Schindler 2013, 476). However, if there is a strong correlation between the two variables, one variable can be used to predict the likelihood of occurrence of the other variable. The correlation coefficient that equals 0 means the there is no correlation. Therefore the closer a correlation is to 0, the less likely one variable can be used predict the another.

2. DATA COLLECTION AND ANALYSIS

2.1. Selection of software vendors for the sample

For the purpose of this research, it was decided to concentrate on those software vendors who provide online task-management applications that are targeted at small businesses. These software vendors provide applications, which are designed to perform well for the teams of 1 to 10 people and be affordable for them. The concentration on the particular customer segment was needed so that it will be manageable to perform the research and derive meaningful conclusions and suggestions. In general, the demand for online task-management applications targeted at businesses of different sizes can be initially disproportional due to the state of the market and the number of business customers. This may have the direct negative influence on the accuracy of the estimations from the data analysis. It would be hard to assess whether certain variables were influenced by the other variables under the study and not by the third party effect.

As long as the object of this research paper are software vendors who provide online task-management applications targeted at small businesses, the resulting sample should consist of companies who are providing substitute products and therefore are direct competitors to each other. For the author it was not practical to personally enumerate and test all available online task-management applications on the market for their features and to determine which of them are close substitutes and are targeted at small business. Therefore, it was decided to use directories that deeply classify software products on the basis of their main functions and then determine the software vendors for each product that matches the characteristic of online task-management applications.

For the selection of software vendors that would be appropriate for the study it was decided to use available directories of B2B software in the Internet. From the one hand, these B2B directories are the platforms where software vendors are presenting and providing

information about their products. From the other hand, these B2B directories are the place where business customers can find the software applications that are specific to their needs. In addition to that, business customers can write reviews and rate particular products. The ability to present the products, write reviews and rate the applications requires the registration of parties on the platform itself. In general, the registration ensures that the information provided on these directories is reliable.

One of the main reasons for the selection of B2B software directories is to increase the reliability of the research. The research should be based on the strong ground and be possibly free of any bias especially in the early stages. Another reason of the selection of B2B software directories it to increase the repeatability of the research. The process of selection of software vendors for the sample should be transparent and be based on some system. The research in general should have clear process that can be replicated by other researchers if needed. Directories enable the system that is not linked to the one specific researcher and his possible bias.

It was decided to use Capterra and GetApp as the primary directories of B2B software among the other choices in the Internet. These directories maintain very large databases of B2B software. Both directories provide deep classification of B2B software, so that it is possible to choose very specific types of applications. Most importantly, both directories provide very advanced search filters that enable to choose applications on the basis of their internal features as well as target audience. The search filter options for these two directories are nearly identical in their functionality. Therefore, it was possible to use both directories simultaneously to search for the same type of applications. (Capterra and GetApp)

To obtain the list of software vendors, the "Task Management" category was selected in both directories. Then, the search filters were adjusted to match the characteristics of online task-management applications targeted at small business. In total, from both directories there were found 51 unique products that matched these characteristics. Each product is developed by the unique software vendor. Therefore, there are 51 unique software vendors who provide online task-management applications that are targeted at small business. In order to increase the accuracy of the research findings, it was decided to include all obtained companies in the sample. More detailed search algorithm, the list of companies and the date of the search can be found in the Appendix 1.

2.2. Collection of data for the sample of software vendors

2.2.1. Collecting data from corporate blogs

The corporate blogs of selected software vendors were mainly explored through the inbound links of company's official websites and the Google's search engine by using appropriate keywords. If the blog for a certain software vendor was not found in the mentioned sources, it was decided to put the corresponding value into the table. The universal formula was used to determine the number of total blog posts on the blogs that had several pages.

$$total\ posts\ = \big((n\ of\ pages - 1) \times fixed\ n\ of\ posts\big) + n\ of\ posts\ on\ last\ page$$

where

total posts - total number of posts on the blog,
n of pages - number of total pages on the blog,
fixed n of posts - fixed number of posts on the each page (constant),
n of posts on last page - number of posts on the last page (variable).

Manual calculation was performed by the author in the cases when blogs had a single page or when the formula could not be applied due to the complex or non-traditional structure of the blog. In addition to the total number of posts, the dates of the newest available post and the oldest post were also collected. However, it should be mentioned, that not all blogs had the dates attached to their blog posts. Therefore, the data regarding the dates were not collected for all the blogs that were found by the author. The data collected in relation to the corporate blogs can be viewed in the Appendix 2.

2.2.2. Collecting data from Facebook, Twitter and LinkedIn

The social network profiles of selected software vendors were mainly explored through the links on company official websites, by using Google's search engine and the search engines within the selected social networks. The priority was given to the product profile pages. If the profile for a certain software vendor was not found in the mentioned sources, it was decided to put the corresponding value into the table. The data that is available to the public was collected

from those profiles that were found by the author. The available data is specific to each social network. The data that was collected in relation to the social networks can be viewed in the Appendix 3.

From the Facebook it was possible to collect only the number of "Total Page Likes" for the profiles that were found. This represents the number of people who liked the company's Facebook page. When people like the Facebook page, it is usually because the owner of the page has posted something or ran an advertisement that was interesting to the audience. (Facebook Measurement Basics) From the Twitter it was possible to collect three types of data that were relevant to the research. The data types that were collected from Twitter is the number of "Tweets", number of "Followers" and the number of "Likes". Tweet is any message posted to Twitter containing up to 140 characters. Followers represent the number of people who are subscribed to receive updates from the other profiles. Likes are commonly used to show appreciation for a Tweet. (The Twitter glossary) From the LinkedIn it was possible to collect four types of data that were relevant to the research. The data types that were collected from LinkedIn are the number of "Followers", number of employees in the company and the date company was founded. Followers in case of LinkedIn are those who are subscribed to public updates and long-form posts of the selected profile. (LinkedIn Help Center)

2.2.3. Collecting data from SimilarWeb

In the Internet, almost every action that is performed on the website can be recorded by integrated analytics platforms (Hemann, Burbary 2013, 3). However, these analytics platforms can be integrated only by the owners of the websites or with their permission. Consequently, only owners of the websites and the providers of analytics platforms have the access to the information. Therefore, third party researchers usually cannot access and conduct the analyses of the precise data for the large number of companies. However, the Internet provides an access to the large number of research tools for conducting analyses based on the estimated data (Hemann, Burbary 2013, 7). These research tools try to provide the same types of information as the original analytics platforms that are integrated into websites. However, the data is estimated on the basis of other factors that are used in the integrated platforms. Therefore, the data is not of the same precision compared to the data form integrated platforms. In addition, the accuracy of estimations varies greatly from one research tool to another. The usage of such

tools for the research depends greatly on the research objective. It would be not practical to use the estimated data for the research that is performed to obtain some precise information like the return on investment of the certain promotion strategy for the external company. However, if the research is designed to reveal the patterns of behavior across a large number of companies, the usage of the estimated data can be considered.

Among the other tools that provide estimated data, it was decided to use SimilarWeb platform for the research. The SimilarWeb platform was considered to be appropriate tool for this research because it provides free access to the type of data that is directly related to the research objective. SimilarWeb platform enables to see the desktop traffic statistics for any website for which they have enough data to provide an estimations (Our Data & Methodology). In order to access the data for the particular website, the URL of that particular website should be entered into the system. The following types of data were collected from the SimilarWeb platform:

- estimated number of Internet users who visited the website;
- sources of desktop traffic (direct, referrals, search, social, e-mail, display advertising);
- traffic from social networks (only from top 5 listed);
- usage of display advertising;
- type of traffic from search engines (organic search traffic, paid search traffic).

The estimated data about the number of website visitors is available for the last six months period. The estimated data for the traffic sources is available for the last three months period. At the moment of research the last three months period accounted for September to November of 2015.

Not for all selected software vendors it was possible to collect the data from the research tool. The reason, according to the SimilarWeb, is that the engagement to the company's website is too low to allow them to get enough data to provide an accurate estimation of the traffic (Knowledge Base). Despite that limitation, the data was collected for the majority of software vendors. In total, the mentioned above data was collected for 36 out of 51 software vendors. Companies without the data will be excluded only from those analyses that are related to the data collected from the SimilarWeb platform. The list of companies and the data that was collected can be viewed in the Appendix 4.

2.3. The analysis of gathered data

On the basis of the data that was collected it is possible to conduct a set of analyses. The level of analysis for each online media channel depends on the type and the amount of data that was collected for that specific channel. Due to the real market conditions that are not controlled by the author, for some types of variables there is a number of missing data. Therefore, it should be noted that it is not possible to take all 51 selected software vendors under the study and equally include them in all types of analyses that are performed. For some variables, the whole sample of software vendors will be taken for the analysis. For other variables, only those who have the relevant information will be analyzed. For the certain variables the absence of data fill be treated differently. This concerns the data related to the presence of company's blogs and profiles on the selected social networks. The careful search was performed by the author to find blogs and profiles of the companies in the Internet. Those blogs and profiles that were not found are decided to be treated as no existent.

2.3.1. The analysis of company data related to selected software vendors

The following set of analyses will enable to find out more information about the selected software vendors who are operating in the market. This is important because, such characteristics of software vendors, like the company size or the number of years in the business can have the direct impact on the promotional activity that these companies are performing.

It is possible to determine the distribution of software vendors on the basis of their total operating time. The number of years that the company is operating will be obtained by computing the difference between the company's foundation year and the year when the data was collected. The resulting values across all software vendors will be grouped in specific time ranges. For the each group, there will be calculated a percentage of companies that match the time criteria. In addition, it is possible to determine the distribution of software vendors on the basis of their size. The size of the company will be determined by the number of employees. Information about the number of employees is obtained from LinkedIn profiles of software vendors.

The data regarding the number of employees will be consolidated into four groups that represent company sizes:

- small vendors (1-10 employees),
- medium vendors (11-50 employees),
- big vendors (51-500 employees),
- very big vendors (1,001-10,000 employees).

For the each group, there will be calculated a percentage of companies that match the size criteria. These analyses include only those companies for which it was possible to find both the date founded and the number of employees. In total, 44 out of 51 software vendors are selected for these analyses. The list of software vendors who are the part of these analyses can be seen in the Appendix 5.

2.3.2. The analysis of data related to company websites traffic

The following analysis enables to get information about the overall desktop traffic to websites that are used by selected software vendors to provide their applications. It is possible to determine the volume of the overall desktop traffic from each traffic source across all selected websites. This information enables to assess the promotional activity of software vendors that is reflected in the website traffic. The traffic volume will be calculated for each traffic source across those software vendors for whom it was possible to obtain data from the SimilarWeb. In total, 36 out of 51 software vendors are selected for this analysis. The list of software vendors, additional data and the description of calculation process can be seen in the Appendix 6.

2.3.3. The analysis of data collected from corporate blogs

The following set of analyses will enable to find out to what extend the selected software vendors are utilizing blogging as one of their online media channels for the promotion. For the first analysis of data, it is possible to determine the percentage of selected software vendors who have and do not have the blog. For that, all selected software vendors will be included in the analysis. The percentage is calculated on the basis of the number of "yes" and "not found"

values in the table. The list of software vendors who are the part of this analysis can be seen in the Appendix 2.

For the second analysis of data, it is possible to determine the distribution of software vendors on the basis of their total blogging time. It will be possible to calculate the distribution only for those software vendors who have the blog and have attached dates to their blog posts. The total usage time for each blog is determined by finding the difference between the date of the newest post on the blog and the date of the oldest post on the blog. The time value is measured in years and is rounded to the whole number. The year value that is less than 1 will mean that the blog is used only for a certain number of months. In addition to the distribution of software vendors on the basis of their total blogging time, the total and the average number of posts will be calculated for the each time range. It is needed to find out how the total time of blogging relates to the number of posts on the blogs. The list of software vendors and the additional data can be seen in the Appendix 7.

For the third analysis of data, it is possible to determine the distribution of corporate blogs based on how up to date their content is. This is needed to know the percentage of selected software vendors that have updated and outdated blogs. Calculation of distribution will be possible only for those software vendors who have attached dates to their blog posts. The date of the newest post is used to determine how up to date the blog is. The total number of days since the newest post is calculated in relation to the date when the data was collected. The resulting values across all software vendors will be assigned to specific time ranges. These time ranges (categorical values) are:

- Up to date - the date of the newest post is the same when the data was collected,
- Within a week - the newest post falls within a week time range,
- Within two weeks - the newest post falls within two weeks time range.

For the each time range, there will be calculated a percentage of blogs that match the criteria. The list of software vendors and the additional data can be seen in the Appendix 7.

For the further analysis, it is possible to determine the average number of total blog posts across the selected software vendors. The mean value will be calculated across all companies which blog has been found. The list of software vendors who are the part of this analysis can be seen in the Appendix 7. In addition, it is possible to determine how often in

average the selected software vendors post on their blogs. The frequency of publication will be calculated in relation to the total time that blog was active for the software vendor. Therefore, the mean value can be calculated only for those companies that have the dates attached to their posts. Frequency is measured in number of posts per month. The resulting value is rounded to the whole number. The list of software vendors who are the part of this analysis can be seen in the Appendix 7.

2.3.4. The analysis of data related to search traffic

The following set of analysis will enable to find out to what extend the selected software vendors are utilizing search engines to promote their applications. It is possible to determine the distribution of software vendors on the basis of the type of search traffic that they have. This information is needed to know the percentage of software vendors that have only organic search traffic and the percentage of those that have the organic as well as the paid search traffic. The distribution will be calculated for all software vendors for which it was possible to collect data regarding the type of search traffic and company size. The company size value is needed to determine who are the companies that have only organic search and the paid search. In addition, for those software vendors who have paid search traffic, it is possible to determine the average percentage of total search traffic that is organic and paid. This information will help to identify the effectiveness of paid keywords. In total, 35 out of 51 companies are included in these analyses. The list of software vendors who are the part of this analysis can be seen in the Appendix 8.

2.3.5. The analysis of data related to display advertising traffic

The following set of analysis will enable to find out to what extend the display advertising is used across the selected software vendors. It is possible to determine the percentage of software vendors on the basis of whether they are using ad networks for display advertising or not. The percentage is calculated on the basis of the number of "yes" and "no" values in the table. The percentage will be calculated for all software vendors for which it was possible to collect the data regarding display advertising and company size. The company size

value is needed to determine who are the companies who use and do not use the display advertising. For the further analysis, it is possible to determine the average percentage of total website traffic that comes from display advertising. The mean value will be calculated only for those software vendors who use the display advertising as a part of their marketing activity. In total, 35 out of 51 selected software vendors are included in these analyses. The list of software vendors who are the part of these analyses can be seen in the Appendix 9.

2.3.6. The analysis of data related to e-mail traffic

The following set of analyses will enable to find out to what extend e-mails are used across the selected software vendors for the promotion of their applications. During the collection of data, it was noticed by the author, that not all software vendors have the website traffic from the e-mail source during the three months period. Therefore, it is possible to determine the proportion of selected software vendors who have and do not have the website traffic from the e-mail source. The percentage distribution will be calculated only for those software vendors who have the data regarding the e-mail traffic and the company size. The company size value is needed to determine who are these companies who have no e-mail traffic for the period of three months. In addition, it is possible to determine the average percentage of total website traffic that comes from the e-mail source. The mean value will be calculated only for those software vendors who have the traffic from the e-mail source. In total, 35 out of 51 selected software vendors are included in the analysis. The list of software vendors who will are the part of this analysis can be seen in the Appendix 10.

2.3.7. The analysis of data collected from social networks

The following set of analyses will enable to find out to what extend the selected social networks are used across the selected software vendors. It is possible to determine how many software vendors have profiles on each social network. For that, the total number of companies who have profiles on Facebook, Twitter and LinkedIn will be calculated. It is possible to determine the number of software vendors who have profiles on all three selected social networks. The number of those software vendors who have been marked with "yes" in profile columns across all three social networks will be calculated. It is possible to determine the

number of software vendors have no profiles across all three social networks. The number of those software vendors who have been marked with "not found" in profile columns across all three social networks will be calculated. For the above calculations, all selected software vendors are included in the analysis.

For the further analysis, it is possible to determine the average volume of social traffic that comes from each selected social network. This information is needed to know which social networks in average provide the largest volume of social traffic to the websites of selected software vendors. The mean value will be calculated for those software vendors that have the data regarding the social traffic from all selected social networks. In total, 25 out of 51 software vendors are selected for this analysis. The list of software vendors who will be part of this analysis can be seen in the Appendix 11.

In addition, it is possible to determine the relationship between the level of activity of software vendors in selected social networks and the estimated number of website visitors that are coming from these social networks. The Microsoft Excel spreadsheet software program will be used to compute the correlations for the selected variables. The correlation coefficient will be computed by using CORREL() function. The list of software vendors who will be part of this analysis can be seen in the Appendix 12.

For the Facebook, the relationship between the estimated number of visitors and the number of likes on the Facebook profile is investigated. For the Twitter, there will be investigated the following relationships:

- The relationship between the estimated number of visitors and the number of tweets of the company,
- The relationship between the estimated number of visitors and the number of twitter followers,
- The relationship between the estimated number of visitors and the number of likes.

For the LinkedIn, the relationship between an estimated number of visitors and the number of followers in the LinkedIn is investigated.

3. RESULTS AND DISCUSSION

3.1. Characteristics of selected software vendors

From the Figure 1 it can be seen that there is a great differentiation of software vendors in relation to the total time they are in business. The larger proportion of companies is represented by those software vendors who are in business from several months to eight years period. They account for 52% of all software vendors. The smallest proportion of companies is represented by those software vendors who are operating more than 17 years.

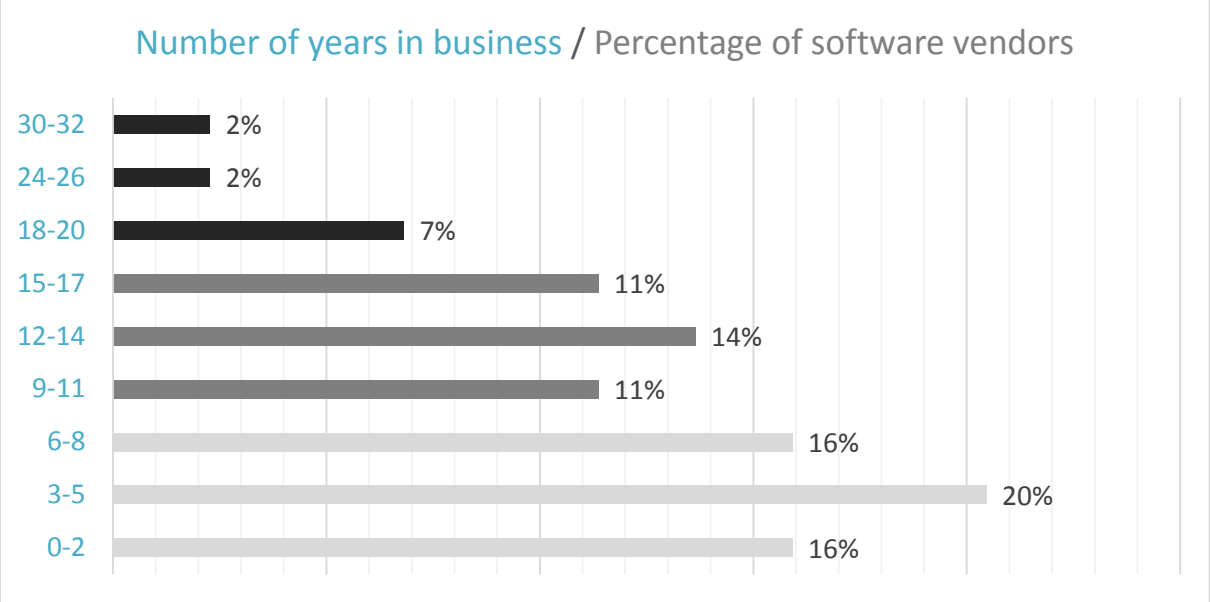

Figure 1. Distribution of selected software vendors based on years in business
Source: Compiled by the author on the basis of data provided in Appendix 5

The number of years that software vendors are in business can tell us how many companies there are with certain level of experience on the market. The experience is usually

linked to the number of years the company is operating. Experienced companies will have established promotion strategy and will be serious threat to the new players on the market.

From the Figure 2 it can be seen that there is an unequal distribution of software vendors across the different company sizes. Two major groups of software vendors consist of medium and small companies. Together they account for 75% of all software vendors. The mode in the selected sample of software vendors is the medium size companies. The smallest group of software vendors consists of very big companies who have from 1,001 to 10,000 employees. This group accounts for 9% of all software vendors.

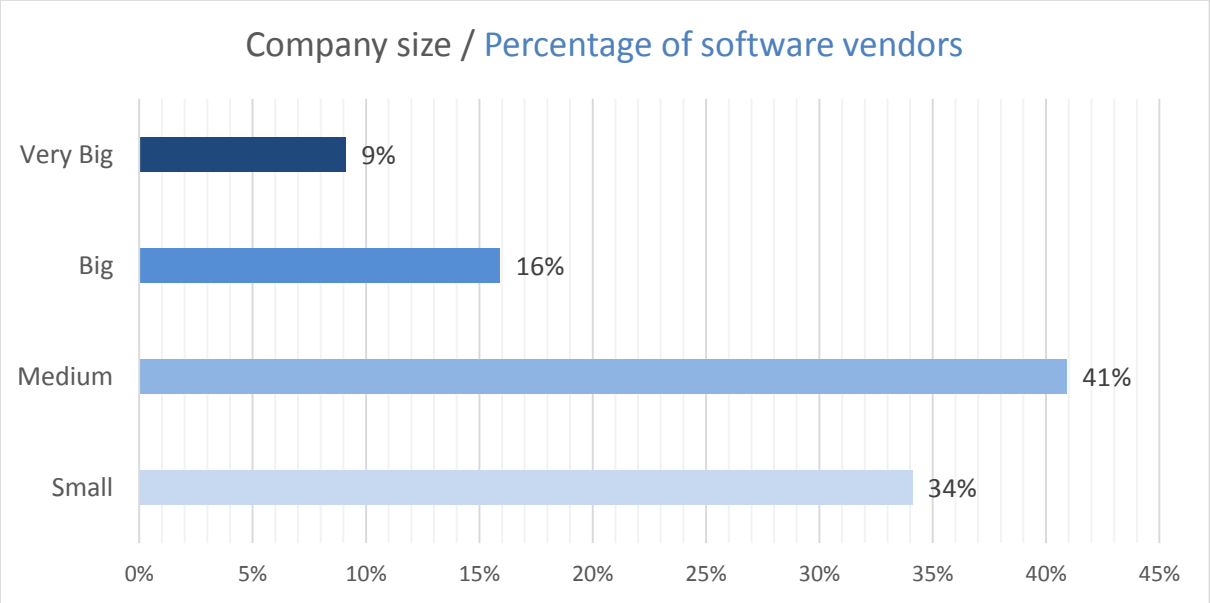

Figure 2. Distribution of selected software vendors based on company size
Source: Compiled by the author on the basis of data provided in Appendix 5

The size of the company can tell us how many software vendors there are with certain level of resources on the market. The more the size of the company, the more resources it have to perform its operations. Those companies who have resources can organize advanced promotional campaigns across many online media channels.

These two figures suggest that there is a great variation of software vendors in terms of their characteristics on the market of online task-management applications that are targeted at small business.

3.2. Distribution of desktop traffic

The traffic sources are showing where the visitors are coming from. In the case of online applications, the website traffic can be interpreted as the volume of potential or actual users. Therefore, the traffic volume can be viewed as the direct indication of the results of promotional activities that are implemented across the majority of software vendors.

From the Figure 3 it can be seen that there are three major traffic sources that are bringing noticeably more visitors to websites than all others combined. These sources represent direct traffic, traffic from referral sites and traffic from organic search. The smallest traffic source among all others is the display advertising.

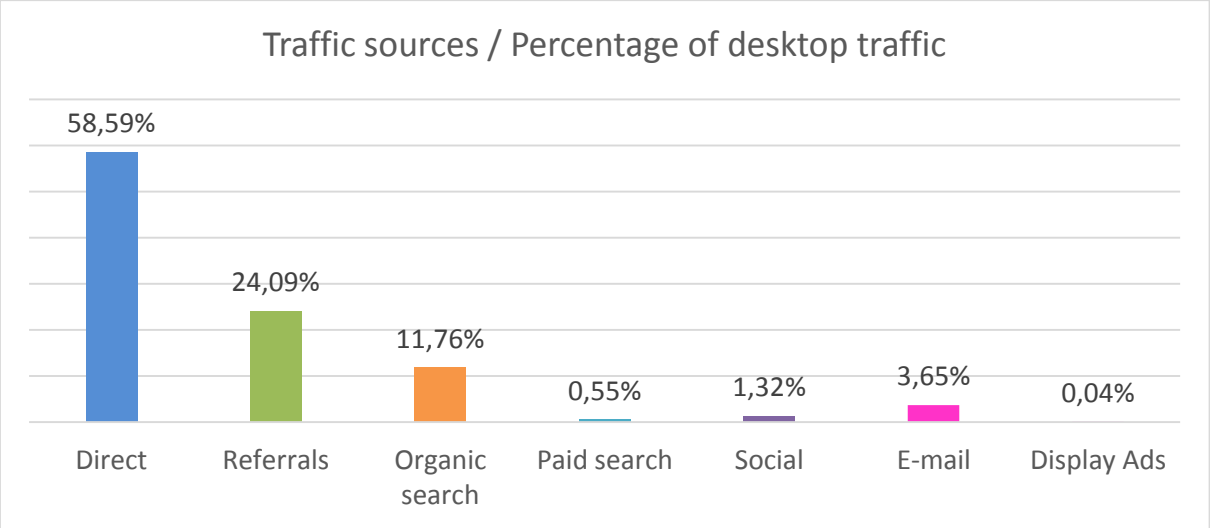

Figure 3. The volume of desktop traffic from different traffic sources across all websites
Source: Compiled by the author on the basis of data provided in Appendix 6 and Appendix 4

The direct traffic volume is as twice as high compared to the referrals traffic and five times higher compared to the organic search traffic. Based on this information it can be concluded that the majority of visitors are coming directly to websites of software vendors. The likely reason for that is the online task-management applications, which are accessed through the websites of software vendors. It appears that the majority of users prefer to directly access applications from their web browsers. The next biggest traffic source represents other websites in the Internet that are linking directly to the websites of software vendors and sending additional traffic. The third largest traffic source represents visitors that are coming to websites

through organic search engines results. Most likely, these are the visitors who searched for the topic related to task-management and online applications. Social traffic and e-mail traffic have the smallest difference in volumes compared to other sources. The insignificant traffic volumes of display advertising and the paid search can be partially explained by the fact that not all software vendors are using these online media channels. The proportion of vendors who use these online media channels will be revealed and discussed in the following sub-chapters.

3.3. Results for corporate blogging

From the Figure 4 it can be concluded that the majority of software vendors have the blog. It should be noted that those companies who do not have the blog in the study population are either young startup companies that were founded in the year 2015 or mature companies that were founded starting from the year 1993 to 2006.

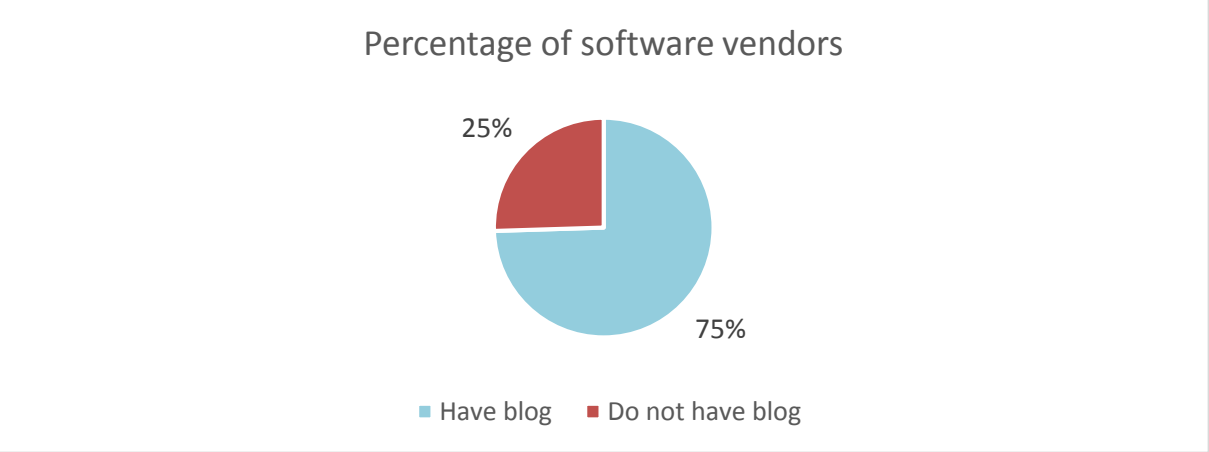

Figure 4. Percentage of selected software vendors who have and do not have the blog
Source: Compiled by the author on the basis of data provided in Appendix 2

From the Figure 5 it can be seen that the largest group of blogs is represented by software vendors who were blogging only from several months to two years period. This data can tell us that almost a half of selected software vendors is engaged in blogging for not so long time. This is most probably caused by the fact that there are many new companies who are doing business for relatively small number of years.

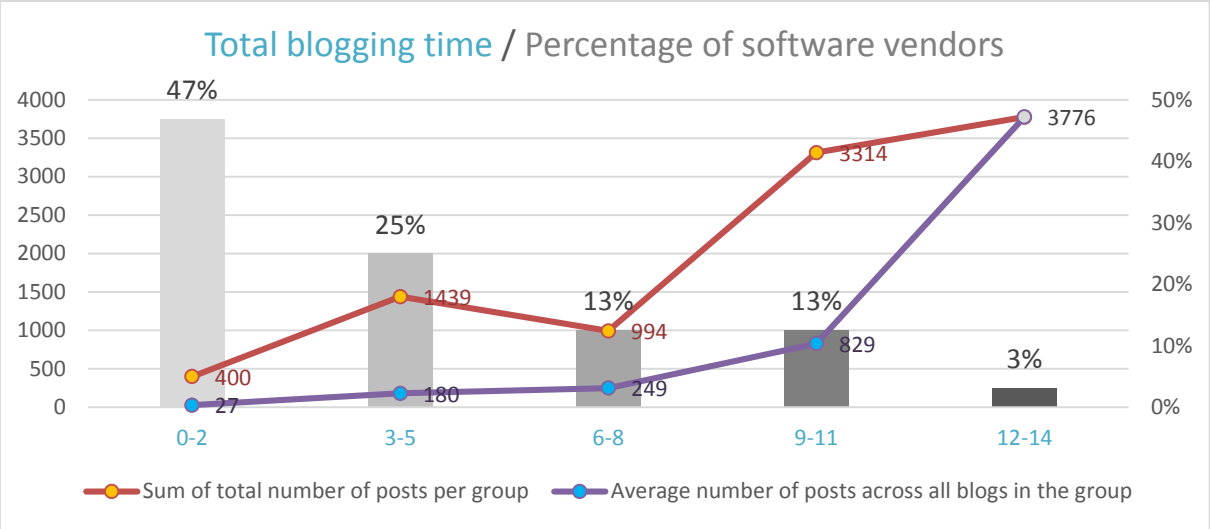

Figure 5. Distribution of software vendors based on their total blogging time
Source: Compiled by the author on the basis of data provided in Appendix 7

The smallest group is comprised of the software vendor who was blogging for more than eleven years. In addition, it can be seen that those blogs who were active for more than eight years do have the highest total number of posts than all others groups combined. These are the software vendors who are already for a long time in business and therefore are experienced in blogging. On the contrary, those blogs that were active only for several years have the lowest number of posts, regardless of the much higher number of companies in the groups. This information can tell us that there are already some established blogs with audience and experienced writers that can deliver quality content. The average number of posts per group supports that notion.

From the Figure 5 there can also be seen a down slope of the red line that represent the total number of posts. This is due to the lower number of total blog posts for the blogs that were active for six to eight years time period. This situation can be explained by the presence of blogs that have been started a long time ago but the frequency of posts for these blogs is very low. Another explanation is that some blogs were not updated for a long time. Therefore the total number of posts is lower than in the majority of groups.

The Figure 6 represents the percentage of total blogs that had the newest post on the same day when the data was collected, had the newest post for not older that one week and had the newest post for not older than two weeks. Based on the results it can be concluded that only

a quarter of all blogs are up to date. However, the number of blogs with relatively fresh content represents the majority of blogs among the selected software vendors.

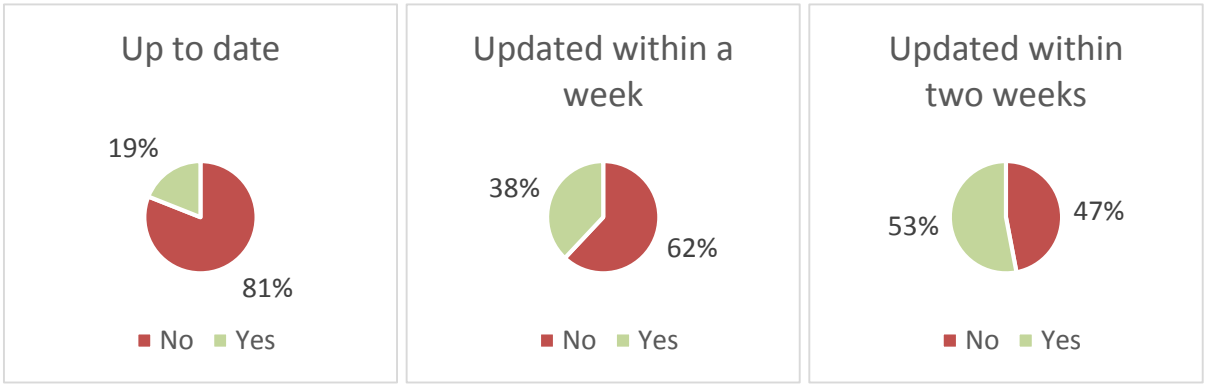

Figure 6. The percentage of total blogs that were updated based on different time periods
Source: Compiled by the author on the basis of data provided in Appendix 7

The average number of total posts per blog across the selected software vendors is 275. The median is 85 posts per blog. The obtained number of total posts can tell us that there is already a lot of content on the market related to the topic of online task-management applications targeted at small business. The average frequency of publication across the selected software vendors is 5 posts per month. The median is 3 posts per month. The obtained frequency of publication can tell us that there is a new piece content each week that can be related to the topic of task-management applications targeted at small business.

Based on the results, it can be concluded that for those software vendors who would like to promote their task-management applications with their blog it is needed to have an expert in the field who can write quality content and can post it frequently.

3.4. Results for search engines

During the data analysis, it became evident that all software vendors have the website traffic from search engine sources. From the Figure 7 it can be seen that the percentage of software vendors who have only organic search traffic and who also have a paid search traffic

is almost evenly distributed. Nearly half of software vendors have only organic traffic from the search engines. The greater half of software vendors have also a paid traffic from search engine.

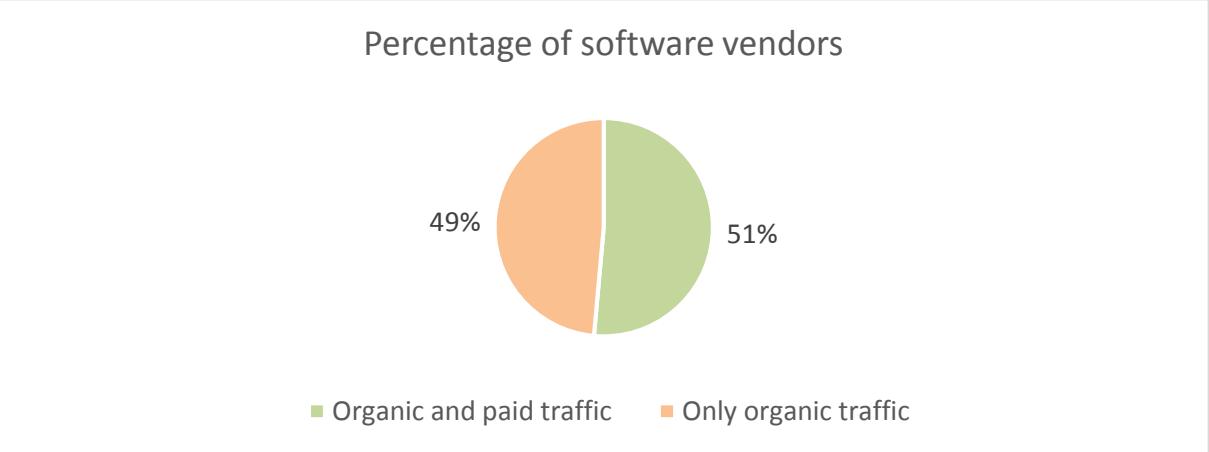

Figure 7. Percentage of selected software vendors who have different type of search traffic
Source: Compiled by the author on the basis of data provided in Appendix 8

From the Figure 8 it can be seen that those 51% of companies who have paid search traffic are represented by software vendors of all sizes. The biggest group of companies comprised of medium size software vendors that account for 33% of those who had paid search traffic. Big and very big software vendors account for 45% of those who uses paid search traffic.

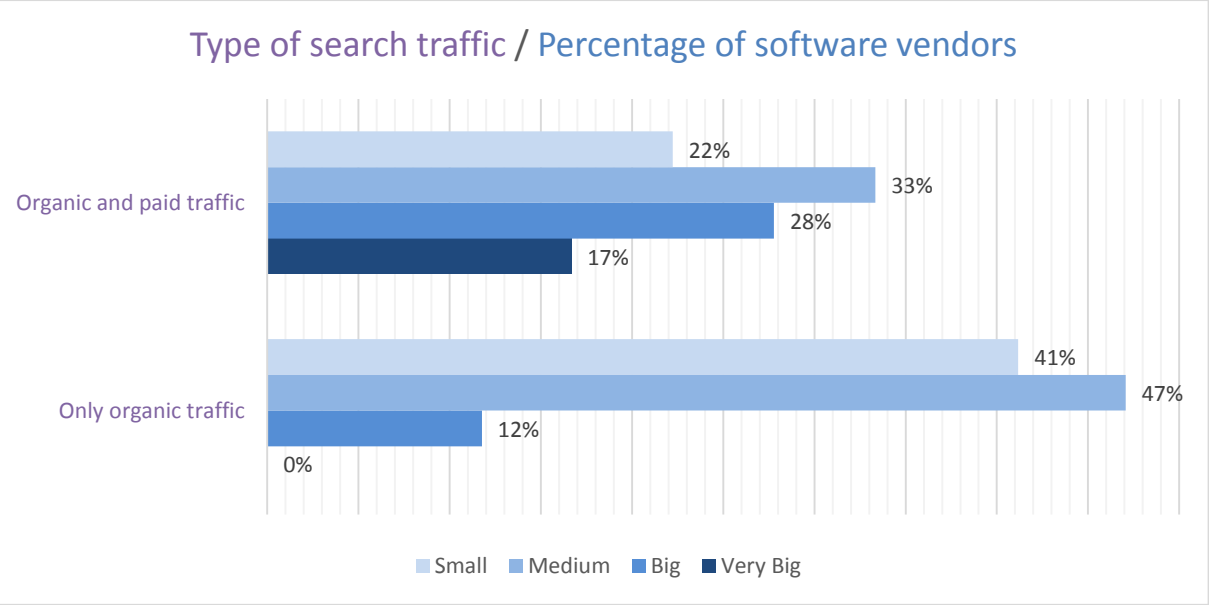

Figure 8. Distribution of software vendors based on the type of search traffic
Source: Compiled by the author on the basis of data provided in Appendix 8

Those 49% of companies who have only organic search traffic are represented mostly by medium and small software vendors who together account for 88% of all companies within a group. Big companies account for 12% of those who had only organic search. There is no very big software vendors in this group.

From the Figure 9 it can be seen that for those software vendors who use paid keywords, the organic traffic is still the major source of the search traffic to the website. In average, the proportion of paid traffic is nearly six percent for those software vendors who use the paid keywords.

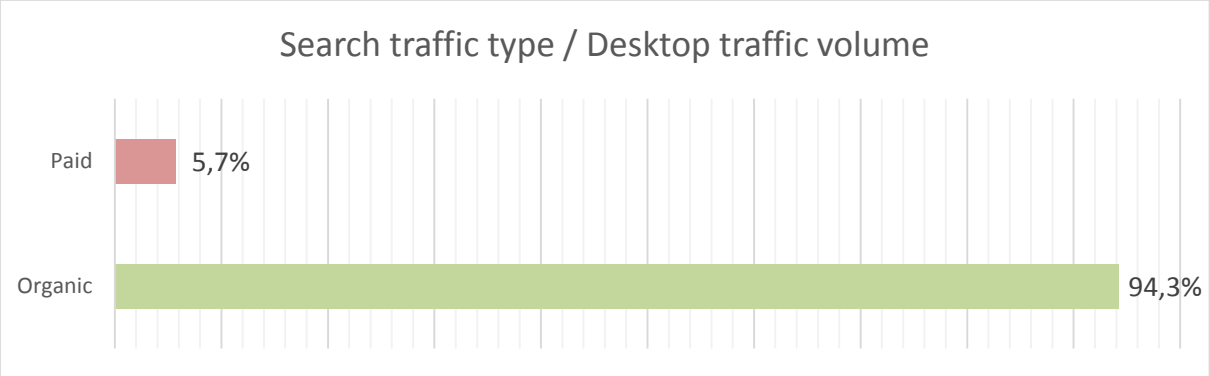

Figure 9. The search traffic distribution across those software vendors who use paid keywords
Source: Compiled by the author on the basis of data provided in Appendix 8

It should be mentioned that the paid search traffic would not happen without the usage of paid keywords by the software vendors. Therefore, it is the addition to the number of organic traffic that these companies would have naturally. In general, this promotional method should bring more customers from the search engine sources.

3.5. Results for display advertising

From the Figure 10 it can be seen that companies are distributed almost equally on the basis of whether they use display advertising or not. More than half of selected software vendors do not use display advertising as part of their marketing activity.

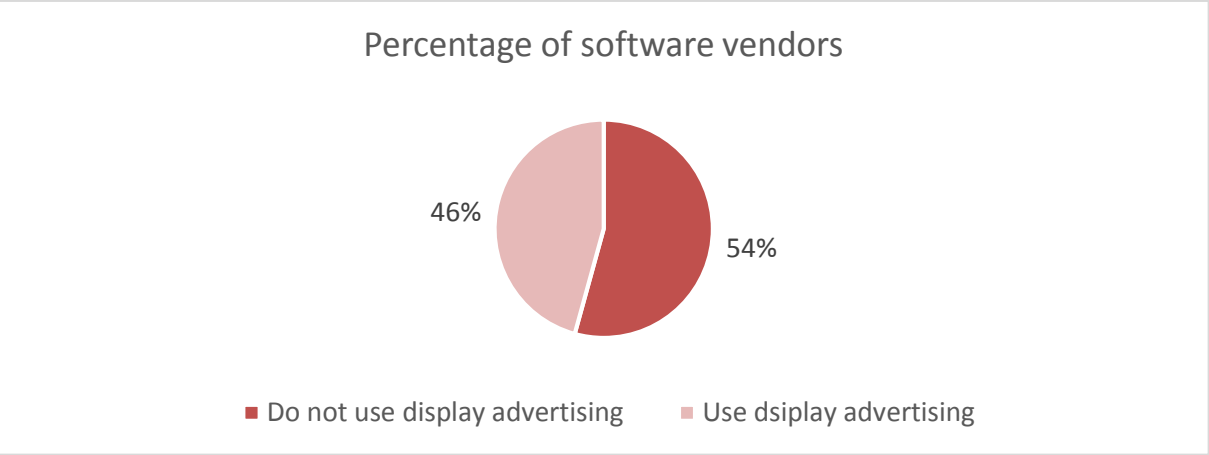

Figure 10. Usage of display advertising among selected software vendors (Sep. to Nov. 2015)
Source: Compiled by the author on the basis of data provided in Appendix 9

From the figure 11 it can be seen that those 46% of companies who use display advertising are represented by software vendors of all sizes. Two largest groups of companies are comprised of big and medium software vendors. Together they account for 69% of those software vendors who use display advertising.

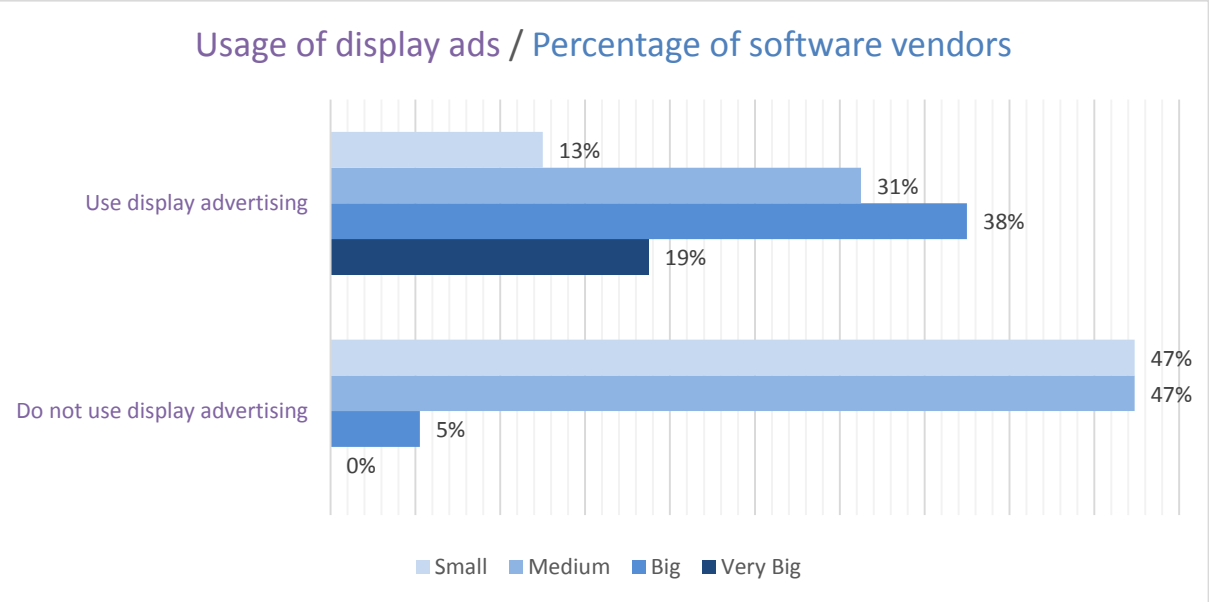

Figure 11. Distribution of software vendors based on whether they use display advertising or not
Source: Compiled by the author on the basis of data provided in Appendix 9

In average, only 0,06% of total website traffic comes from display advertising across all selected software vendors who use ad networks. This is still an insignificant number, compared to other sources of website traffic.

In general, this information can tell us that, compared to the other traffic sources, either the display advertising is not effective method of promotion for the particular market or that it is utilized in very small amounts by the software vendors.

3.6. Results for e-mails

From the Figure 12 it can be seen that the majority of software vendors have the website traffic from e-mail source. The e-mail source is fourth biggest source of the website traffic for those software vendors who were included in the analysis. However, it brings considerably smaller amount of traffic compared to the top three sources. Only 3,65% of the total website traffic came from e-mail source across all selected software vendors who had e-mail traffic.

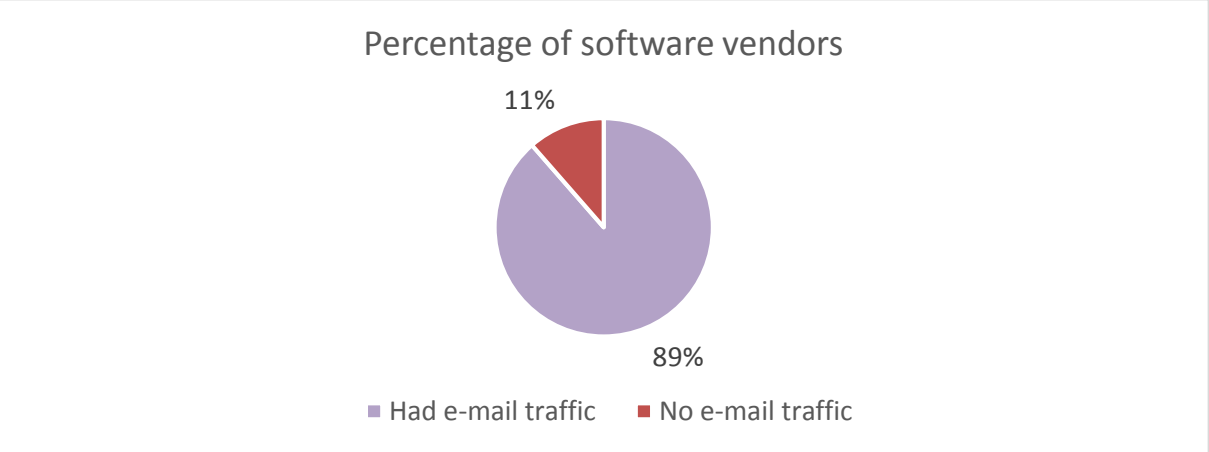

Figure 12. Percentage of companies who had traffic from e-mail source for three months period
Source: Compiled by the author on the basis of data provided in Appendix 10

From the Figure 13 it can be seen that only medium and small software vendors represent those 11% of companies who had zero traffic from e-mail source. Those 89% of companies who had some traffic from e-mail source are represented by software vendors of all

sizes. The largest group among them is comprised of medium software vendors that account for 39% of total companies in the group.

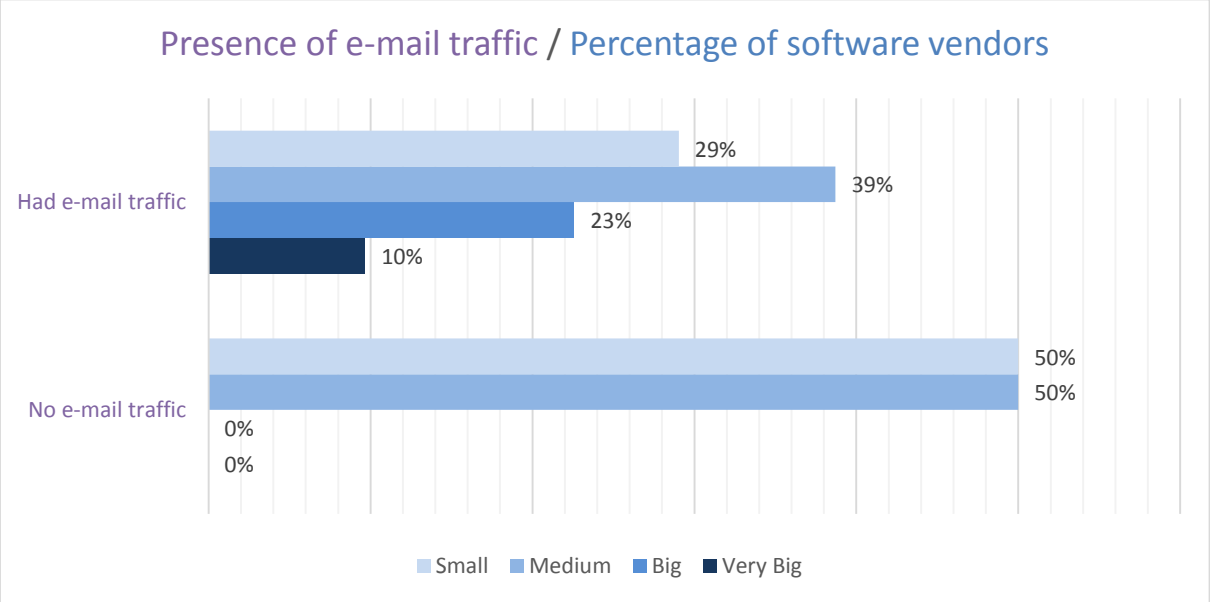

Figure 13. Distribution of software vendors based on the presence of website traffic from e-mail source

Source: Compiled by the author on the basis of data provided in Appendix 10

The reason for no traffic from e-mail source may be linked to the amount of small to medium size vendors who experience some difficulties with the e-mail channel. It can be due to the small audience or not frequent newsletters. However, on the based on the research results it can be concluded that the majority of companies use e-mail channel for promotion of their applications.

3.7. Results for social networks

From the Figure 14 it can be seen that the distribution of social profiles is similar for all three social networks. However, there are slightly more companies who have profiles on LinkedIn.

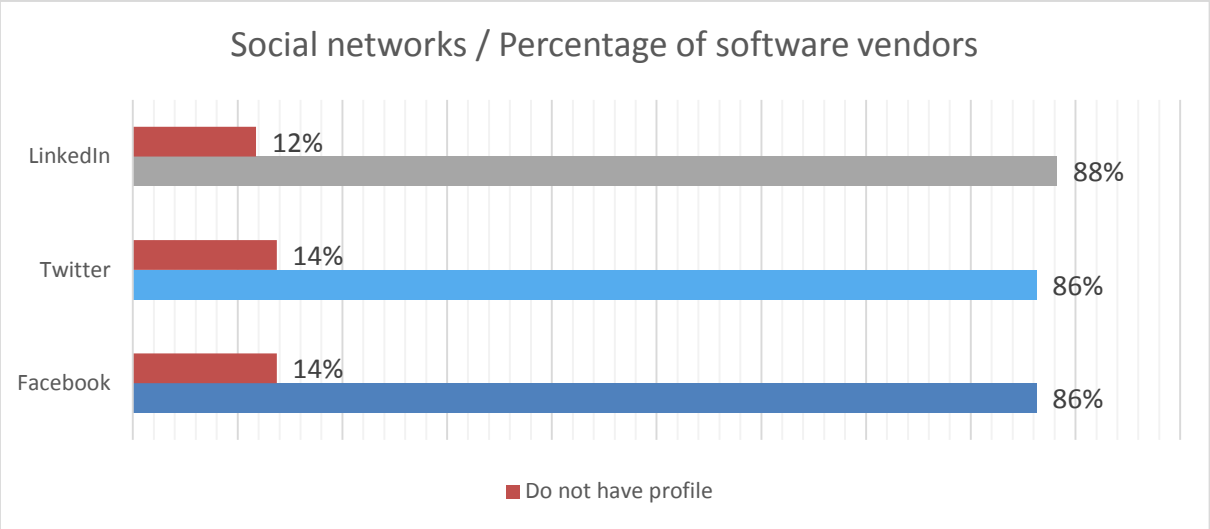

Figure 14. Percentage of software vendors who have and do not have profiles on Facebook, Twitter and LinkedIn

Source: Compiled by the author on the basis of data provided in Appendix 3

In addition to that, from the Figure 15 it can be seen that the majority of companies have profiles on all three social networks. However, there is also a number of software vendors who have no profiles on all three selected social networks. Therefore, it appears that no promotional activity is directly performed by those software vendors on the Facebook, Twitter and LinkedIn. This data complements the numbers from the Figure 14.

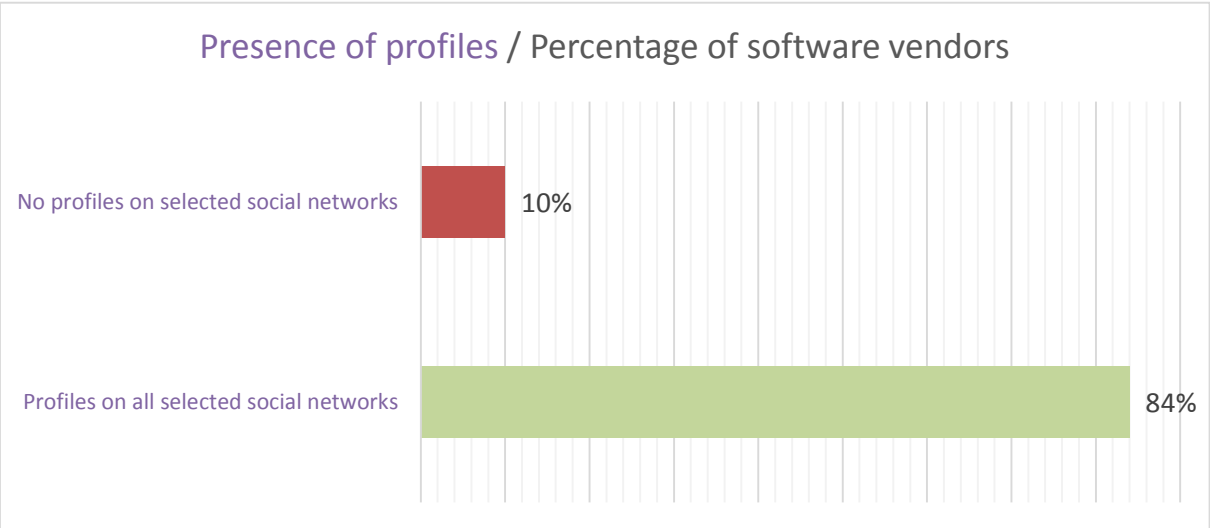

Figure 15. Percentage of software vendors who have profiles on all selected social networks and the percentage of those who do not have profiles at all

Source: Compiled by the author on the basis of data provided in Appendix 3

The similar situation in distribution of profiles among the social networks is mostly due to those software vendors under the study who do not have the social networks at all. Therefore, in general, the majority of companies who have the profile in one social network, most likely will have profiles on other two social networks. Based on this information it can be concluded that almost all software vendors are using social networks as the online media channel for promotion of their applications.

From Figure 16 it can be seen that the biggest proportion of total social network traffic for the websites of software vendors is coming from the Facebook. The Facebook provides more traffic than all other social networks combined.

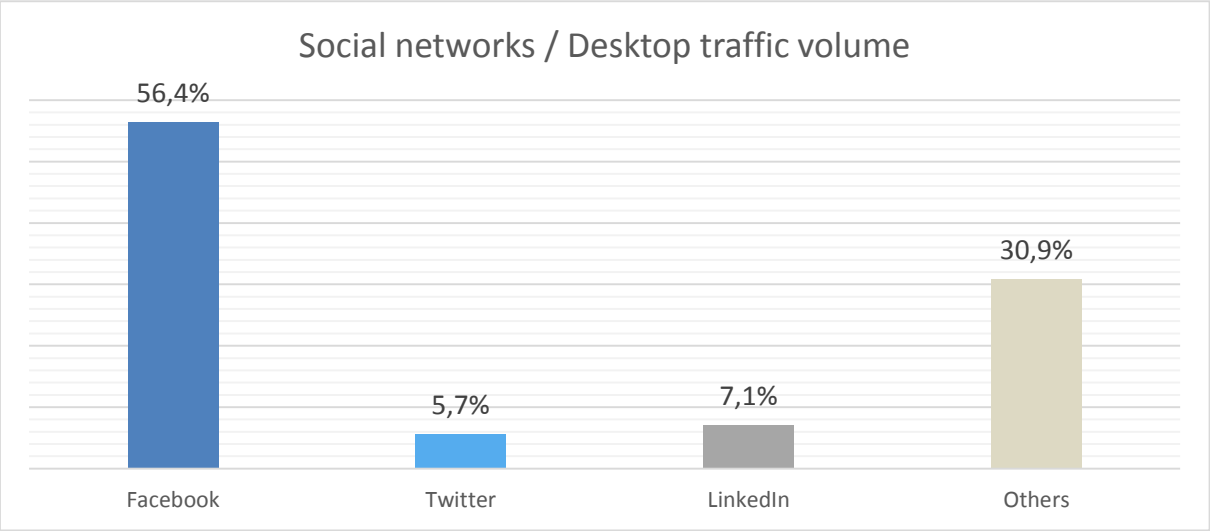

Figure 16. The volume of desktop traffic from social networks across all selected software vendors

Source: Compiled by the author on the basis of data provided in Appendix 11

Relative to the Facebook, the LinkedIn and Twitter are similar among each other in terms of traffic volume. Based on the estimated data Twitter brings the smallest volume of traffic among the three selected social networks. In addition, it can be seen that the one third of all social traffic is provided by combination of various other social networks.

3.7.1. Results of correlation analysis for Facebook, Twitter and LinkedIn

For the Facebook it was determined that the relationship between the estimated number of visitors and number of likes on the Facebook profile is r = 0,690. This is moderately strong positive relationship. However, this result does not tell us whether the activity of the company on this particular social network is strongly related to the amount of visitors. More information is needed.

For Twitter It was determined that the relationship between the estimated number of visitors and the number of tweets of the company is r = 0,861. This is strong positive relationship. The relationship between the estimated number of visitors and the number of twitter followers is r = 0,935. The value is close to 1. This is very strong positive relationship. The relationship between the estimated number of visitors and the number of likes is r = 0,676. This is moderately strong positive relationship. For the Twitter it can be concluded that the number of profile followers have the highest association with the number of visitors that are coming from this social network to the website. This metric should be seriously considered in preparation of promotional activity on this particular social network. Therefore, when companies can determine the activity that helped them to gain followers, they can do more of such activity to build a larger audience that is interested in their business.

For LinkedIn it was determined that the relationship between the estimated number of visitors and the number of followers is r = 0,234. The value is close to zero. This coefficient represents no relationship. The certain metric cannot tell us whether the activity of the company on this particular social network is related to the amount of visitors. More information is needed. Other metrics should be considered for the assessment of promotional activity on this particular social network.

3.8. Findings and proposals

Based on the results that were obtained and discussed in the previous sub-chapters, the Table 1 is compiled by the author to represent the usage and effectiveness of selected online

media channels for promotional activities. In addition, in the Table 1 it is identified which channels it is appropriate to induce in the promotion strategy for companies that want to enter the market of online task-management applications.

Table 1. Presentation of main findings related to the selected online media channels

Online media channels	Usage		Effectiveness		Promotion strategy	Priority
	%	interp.	%	interp.		
Corporate blogs	75%	majority	-	-	can be included	high
Search (organic)	100%	all	11,76%	high	can be included	high
Search (paid)	51%	half	0,55%	low	do not include	-
Display advertising	46%	half	0,04%	low	do not include	-
E-mails	89%	majority	3,65%	moderate	can be included	medium
Social networks	84%	majority	1,32%	moderate	can be included	low

Source: Prepared by the author based on research results and their interpretation

Based on the research results, three primary online media channels are identified to be included in the promotion strategy. These online media channels are corporate blogs, organic search and e-mails.

Software vendors should create their own content to control what customers will see and find in the Internet about their company and their online applications. Many competitors are blogging already for a high number of years and have the established audience. Therefore, in order to successfully attract new users, startups should maintain the level of activity on their blogs that is comparable to the other players on the market. By creating content for blogs and optimizing it for the organic search results, startups will be able to reach a very defined target audience, without considerable spending. The same or modified content can be included to the e-mail newsletters and delivered to potential and current customers.

The social networks considered to have the lower priority and are not included in the top three primary online media channels. The reason is that there are many social networks that

are providing different conditions for the promotional activity. To use these platforms effectively it is needed to have expertise in each of them. For the startups who have limited resources it is better not to use many social networks simultaneously. It is better to concentrate on the select few. Otherwise, if many profiles are created and later not updated it may make impression that the company is outdated or does not function properly. However, the effectiveness of promotional activities only form the few selected social networks may be not satisfactory. Therefore, social networks should be used when there is enough resources and expertise to manage the presence of the company on them.

Based on the research results, it can be concluded that the display advertising and paid keywords should be avoided at the early stages of company development. Based on the sample that was taken for this research paper it can be seen, that the volume of traffic is the lowest for display advertising and the greater half of companies are not using the display adverting at all. This greater half consists of small and medium companies. Although the greater half of companies is using paid keywords for the search traffic, organic traffic is still the major source of the search traffic to the website. Usually, new products from new companies require a lot of promotional effort to create awareness in the market. As long as the budget is limited, they may not get the exposure they need to be successful through these online media channels. From the position of startup companies with limited resources, it will be expensive and not efficient to use display advertising and paid keywords to promote their online applications. Therefore, it is not necessary to include these online media channels in the promotion strategy in the early stages of company development.

It should be noted that the findings and proposals are valid only to startup companies that have limited resources. The conditions for the other companies would be different. If the business is in the growth and expansion stage of the development, the availability of resources and existing customer base enables it to be more flexible in the choice of promotional strategies for their products and services.

CONCLUSIONS

The objective of this paper was to determine the combination of online media channels that startups need to use as the basis for their promotion strategy in order to effectively attract customers to their online task-management applications targeted at small business. The research objective was derived from the problem of the research. The problem of research was that the composition of promotion strategy for the company depends on the actual market conditions and the stage of company's development. Therefore it was needed to consider the characteristics and the behavior related to the promotional activities of the current players in the market as well as to determine the combination of channels on which limited resources should be allocated to achieve effective promotion. The choices of online media channels represent the tactical decisions that are needed to achieve the general objective of the promotion strategy. In the context of this research, the objective of the promotional strategy was to attract business customers to online task-management applications.

During the research, it was investigated to what extend the selected online media channels are used for promotion by existing software vendors that provide online task-management applications targeted at small business. In addition it was determined what online media channels appears to be more effective for business customer acquisition. The sample of software vendors for the research was selected from two business software directories called Capterra and GetApp. In total, the 51 software vendor was included in the sample. The research is based on the primary data collected specifically for the research objective. In the methodological chapters it was determined that the author should perform the research in the Internet and collect quantitative data related to the activity of each software vendor under the study across the selected online media channels. The search for quantitative data was performed across the five selected online media channels in the Internet environment. The data was collected manually by the author from blogs and social networks. The Facebook, Twitter and LinkedIn were selected as the target social networks for the data collection. The collection of

data from such online media channels as display advertising, e-mails and search engines was performed manually by the author by using SimilarWeb analytics platform. Overall, due to the real market conditions that are not controlled by the author, for some types of variables there was a number of missing data. Therefore, it was not possible to take all 51 selected software vendors under the study and equally include them in all types of analyses that were performed. The level of analysis for each online media channel depended on the type and the amount of data that was collected for that specific channel. The measures of central tendency, frequency distribution, cross-tabulation analysis and correlation analysis were chosen to be used as the primary quantitative methods to analyze the collected data.

The results of data analysis provided an overview of the usage and the general effectiveness of selected online media channels. Based on the interpretation of the research results the three primary online media channels were identified to be used as the basis for promotion strategy of online task-management applications. The author proposes, based on the research results that the limited resources of startup companies should be allocated on the corporate blogs, organic search and e-mails in order to effectively attract customers to the task-management applications that are targeted at small business. Based on the preconditions that were establishes in the research the proposed online media channels represent most valuable investments for the startup companies who want to enter the market of online task-management applications targeted at small business. Therefore, for the startups, the promotion strategy for online task-management applications targeted at small business will be composed of promotional activity on corporate blogs, search engines (organic search results) and e-mails.

As with any study, there are certain limitations that should be recognized. As long as it was not possible to determine the number of total population of software vendors who provide online task-management applications targeted at small business and derive the appropriate sample in terms of size and representativeness, it is not possible to generalize the research findings to all software vendors that are selling online task-management applications on the market. In addition, only the desktop website traffic was analyzed in order to determine the effectiveness of selected online media channels. The data regarding the desktop traffic is limited to the three months period. Therefore, further developments can be made to improve the accuracy of the research findings. The accuracy of research findings can be improved by obtaining the data regarding the desktop traffic for the larger period of time as well as including the data regarding the mobile website traffic.

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APPENDICES

Appendix 1. Software vendors selected from Capterra and GetApp

Capterra		GetApp	
Software vendors	**<- Product name**	**Software vendors**	**<- Product name**
Atlassian, Pty Ltd	JIRA	Wrike, Inc	Wrike
DORG Projektid, OÜ	Contriber	ProActive Software, Ltd	ProWorkflow
Visionera AB	VisionFlow	Project Bubble, LLC	Project Bubble
Zoho Corporation, Pvt Ltd	Zoho Projects	Trello, Inc	Trello
Stand By Soft, Ltd	RationalPlan	Bitrix, Inc	Bitrix24
A51, DOO	Active Collab	Gdiz, LLC	StrikeBase
Countersoft, Ltd	Gemini	Planbox, Inc	Planbox Work
Cloud Solutions, SAS	Wimi	Citrix Systems, Inc	Podio
Think Productivity, Ltd	DropTask	6 Wunderkinder, GmbH	Wunderlist
Ideias e Imagens, Lda	HiveFlux	Smartsheet.com, Inc	Smartsheet
Allthings, Ltd	allthings	Avaza Software, Pty Ltd	Avaza
NewtonIdeas, LLC	Comindwork	Sandglaz, Inc	Sandglaz
DynaDo	DynaDo	PPMLite, LLC	Roadmap
MetaLab Design, Ltd	Flow	Disarea, LLC	smartQ
Human Computer, LLC	HiTask	AdminiTrack, Inc	AdminiTrack.com
HyperOffice	HyperOffice Task Management	ProcessGene, Ltd	ProcessGene Task Management Software
AroFlo, Pty Ltd	IMS	Bolste, Inc	Bolste
Intuit, Inc	Intuit QuickBase	PlanDone	PlanDone
Swift Software, Inc	JobTraQ	KissIQ	KissIQ
Projectplace International AB	Projectplace		
semYou, GmbH	SEMYOU - sem.Task		
Doist	Wedoist		
Orbisoft Corporation.	Task Manager		
Pro DBX	DBX		
The Everest System, Inc	Tactick		
teamfocus, Pty Ltd	teamfocus		
Lodestar Technology Labs, LLC	MasterTask		
Pinpoint Software, Inc	Taskle		
TrackRay	TrackRay		
Task Solutions	TaskAnyone		
TGMT-Systems	Project Drive		
Issue Simple	Issue Simple		
32 unique companies from Capterra		*19 unique companies from GetApp*	

Source: Data collected by the author

Detailed search for online task-management applications in two selected software directories.

Data was gathered on 07.12.2015

Capterra filters	Search 1	Search 2	GetApp filters	Search 1
Number of users:	*1*	*2-9*	**Organization types:**	*Freelancers, Small Business*
Deployment:	*Web-Based*		**Devices supported:**	*Web-Based*
Features:	*Recurring Tasks, Task Planning, Task Tracking*		**Features:**	*Recurring Tasks, Task Planning, Task Tracking*
Search results:	25	32 *<- all 25 from Search 1 are included in Search 2*		20
Unique results per direcory:		32 *<- therefore, unique results from Capterra is 32*		20
Total unique results:				51

Source: Compiled by the author

Appendix 2. Data collected from corporate blogs

Data was gathered on 09.12.2015			Dates of		*Technical data needed for calculation of main varialbes*		
Software vendors	**Blog**	**Total posts**	**newest post and**	**oldest post**	**Posts per page**	**Posts on last page**	**Total pages**
Atlassian, Pty Ltd	yes	3776	09.12.2015	27.01.2002	6	2	630
DORG Projektid, OÜ	yes	26	09.12.2015	17.06.2015	10	6	3
Zoho Corporation, Pvt Ltd	yes	126	17.11.2015	25.08.2006	7	7	18
Stand By Soft, Ltd	yes	169	03.11.2015	13.11.2008	10	9	17
A51, DOO	yes	24	17.11.2015	03.06.2015	Complex blog structure, manual calculation		
Countersoft, Ltd	yes	22	16.11.2015	29.09.2014	One single page, manual calculation		
Cloud Solutions, SAS	yes	26	30.10.2015	15.02.2012	5	1	6
Think Productivity, Ltd	yes	82	04.12.2015	06.03.2013	10	2	9
Ideias e Imagens, Lda	yes	68	*No dates attached to the posts*		15	8	5
Allthings, Ltd	yes	25	05.11.2015	15.04.2015	*Complex blog structure, manual calculation*		
DynaDo	yes	20	*No dates attached to the posts*		5	5	4
MetaLab Design, Ltd	yes	11	03.12.2015	24.09.2015	10	1	2
Human Computer, LLC	yes	53	04.09.2015	11.03.2010	10	3	6
HyperOffice	yes	116	15.05.2014	11.10.2006	10	6	12
Intuit, Inc	yes	1840	09.12.2015	03.05.2005	7	6	263
Swift Software, Inc	yes	114	07.12.2015	18.11.2010	10	4	12
Projectplace International AB	yes	215	01.12.2015	12.11.2009	10	5	22
semYou, GmbH	yes	15	05.12.2015	19.05.2015	*One single page, manual calculation*		
Orbisoft Corporation.	yes	3	09.02.2015	18.09.2014	*One single page, manual calculation*		
Pro DBX	yes	30	25.11.2015	13.10.2015	*One single page, manual calculation*		
The Everest System, Inc	yes	18	*No dates attached to the posts*		6	6	3
teamfocus, Pty Ltd	yes	19	18.05.2015	04.02.2014	*Complex blog structure, manual calculation*		
Lodestar Technology Labs, LLC	yes	4	17.01.2010	27.12.2009	*One single page, manual calculation*		
Pinpoint Software, Inc	yes	97	10.07.2015	18.11.2013	3	1	33
Wrike, Inc	yes	996	09.12.2015	29.08.2006	10	6	100
ProActive Software, Ltd	yes	352	30.11.2015	22.01.2006	5	2	71
Project Bubble, LLC	yes	187	*No dates attached to the posts*		5	2	38
Trello, Inc	yes	179	*Dates attached only to portion of posts*		10	29	20
Bitrix, Inc	yes	301	09.12.2015	24.04.2012	15	1	21
Gdiz, LLC	yes	22	02.11.2013	09.10.2012	10	2	3
Planbox, Inc	yes	8	27.11.2015	12.07.2015	*One single page, manual calculation*		
Citrix Systems, Inc	yes	428	09.12.2015	25.03.2011	5	3	86
6 Wunderkinder, GmbH	yes	155	02.12.2015	08.11.2010	*One single page, automatic calculation*		
Smartsheet.com, Inc	yes	494	08.12.2015	13.11.2007	5	4	99
Avaza Software, Pty Ltd	yes	12	17.11.2015	14.08.2014	5	2	3
Sandglaz, Inc	yes	274	01.09.2015	11.01.2011	10	4	28
Disarea, LLC	yes	88	01.12.2015	27.09.2010	10	8	9
AdminiTrack, Inc	yes	45	*No dates attached to the posts*		10	5	5
Visionera AB	not found						
NewtonIdeas, LLC	not found						
AroFlo, Pty Ltd	not found						
Doist	not found						
TrackRay	not found						
Task Solutions	not found						
TGMT-Systems	not found						
Issue Simple	not found						
PPMLite, LLC	not found						
ProcessGene, Ltd	not found						
Bolste, Inc	not found						
PlanDone	not found						
KissIQ	not found						
38 companies have the blog							

Source: Data collected by the author

Appendix 3. Data collected from Facebook, Twitter and LinkedIn

	Facebook		Twitter				LinkedIn			
Software vendors	Profile	Total page likes	Profile	Tweets	Followers	Likes	Profile	Followers	Employees	Founded
Atlassian, Pty Ltd	yes	41902	yes	9367	46350	14	yes	45178	1001-5000	2002
DORG Projektid, OÜ	yes	423	yes	357	422	103	yes	22	11-50	2014
Visionera AB	yes	0	yes	152	87	3	yes	61	1-10	2001
Zoho Corporation, Pvt Ltd	yes	48660	yes	9530	24473	2463	yes	30250	1001-5000	1996
Stand By Soft, Ltd	yes	309	yes	492	114	9	yes	43	1-10	1997
A51, DOO	yes	2151	yes	3477	3903	3892	yes	171	11-50	2007
Countersoft, Ltd	yes	2116	yes	1738	1530	16	yes	76	11-50	2003
Cloud Solutions, SAS	yes	51778	yes	332	399	40	yes	256	11-50	2010
Think Productivity, Ltd	yes	899	yes	1490	3101	637	yes	76	1-10	2011
Ideias e Imagens, Lda	yes	1066	yes	3387	1031	659	yes	31	1-10	2014
Allthings, Ltd	yes	1007	yes	1745	1784	760	yes	136	1-10	2013
NewtonIdeas, LLC	yes	437	yes	361	298	2	yes	23	1-10	2007
DynaDo	yes	202	yes	441	515	9934	yes	69	11-50	2010
MetaLab Design, Ltd	yes	2851	yes	2757	3662	237	yes	875	11-50	2006
Human Computer, LLC	yes	1208	yes	453	383	0	yes	6	1-10	2008
HyperOffice	yes	237	yes	724	334	7	yes	362	11-50	*no data*
AroFlo, Pty Ltd	yes	740	yes	178	40	4	yes	146	11-50	2001
Intuit, Inc	yes	3252	yes	7333	4526	116	yes	1126	201-500	*no data*
Swift Software, Inc	yes	52	yes	368	84	11	yes	103	11-50	2004
Projectplace International AB	yes	2128	yes	2296	1163	219	yes	3853	51-200	1998
semYou, GmbH	yes	42123	yes	16	2	0	yes	13	1001-5000	2008
Doist	yes	302	yes	138	206	0	yes	769	11-50	2007
Orbisoft Corporation.	yes	3	yes	5	2	0	yes	49	11-50	1996
Pro DBX	yes	247	yes	79	143	46	yes	28	11-50	2013
The Everest System, Inc	yes	281	yes	387	3378	283	yes	12	1-10	2014
teamfocus, Pty Ltd	yes	85	yes	18	21	0	yes	8	1-10	2010
Lodestar Technology Labs, LLC	not found		not found				yes	8	11-50	2007
Pinpoint Software, Inc	yes	108	yes	865	211	36	yes	63	1-10	2011
Wrike, Inc	yes	10663	yes	6550	5988	634	yes	7324	201-500	2003
ProActive Software, Ltd	yes	4001	yes	745	2443	42	yes	83	11-50	*no data*
Project Bubble, LLC	yes	495	yes	3091	1251	55	yes	22	1-10	2009
Trello, Inc	yes	57556	yes	18045	97002	10981	yes	3982	51-200	*no data*
Bitrix, Inc	yes	4306	yes	3425	2488	473	yes	234	51-200	1998
Gdiz, LLC	yes	114	yes	4912	242	66	yes	48	11-50	2005
Planbox, Inc	yes	507	yes	2321	2434	135	yes	220	11-50	1999
Citrix Systems, Inc	yes	19768	yes	3928	16954	884	yes	161591	5001-10,000	1989
6 Wunderkinder, GmbH	yes	72343	yes	14262	68912	9081	yes	1485	51-200	2010
Smartsheet.com, Inc	yes	8751	yes	8751	7934	1659	yes	6345	201-500	2005
Avaza Software, Pty Ltd	yes	249	yes	32	3940	3	yes	11	1-10	2014
Sandglaz, Inc	yes	625	yes	4142	2330	802	yes	74	1-10	2011
PPMLite, LLC	yes	5	yes	77	124	8	yes	39	1-10	2012
Disarea, LLC	yes	111	yes	1861	89	1	not found			
AdminiTrack, Inc	yes	61	yes	40	19	0	yes	9	11-50	2000
ProcessGene, Ltd	not found		not found				yes	321	11-50	2004
Bolste, Inc	yes	418	yes	2	0	3	yes	18	1-10	*no data*
PlanDone	yes	19	yes	93	49	1	yes	5	*no data*	*no data*
TrackRay	not found		not found				not found			
Task Solutions	not found		not found				not found			
TGMT-Systems	not found		not found				not found			
Issue Simple	not found		not found				not found			
KissIQ	not found		not found				not found			
	Facebook data was gathered on 9.12.2015		*Twitter data was gathered on 9.12.2015*				*LinkedIn data was gathered on 08.12.2015*			

Source: Data collected by the author

Appendix 4. Data collected from SimilarWeb

The data was gathered on 10.12.2015 - 11.12.2015 — *Main sources of desktop traffic for the website over the last three months*

	Estimated monthly visits (June - November 2015)						Traffic sources (September - November 2015)					
Software vendors	June	July	August	September	October	November	Direct	Links	Search	Social	Email	Display
Atlassian, Pty Ltd	8100000	7900000	8250000	8350000	9300000	8250000	25,15%	15,41%	56,55%	1,60%	1,13%	0,16%
DORG Projektid, OÜ	1000	500	1000	2000	9000	15000	35,61%	31,47%	4,97%	27,85%	0,11%	0,00%
Visionera AB	7000	8000	7000	8000	9000	15000	41,12%	55,17%	3,36%	0,11%	0,24%	0,00%
Zoho Corporation, Pvt Ltd	23500000	25300000	27700000	27500000	27500000	26000000	47,39%	36,22%	9,83%	1,56%	4,97%	0,04%
Stand By Soft, Ltd	20000	10000	10000	15000	10000	15000	35,98%	13,24%	48,32%	2,04%	0,43%	0,00%
A51, DOO	170000	200000	250000	250000	340000	270000	57,06%	27,33%	9,26%	2,04%	4,27%	0,04%
Countersoft, Ltd	10000	9000	10000	10000	8000	7000	36,56%	27,67%	33,55%	1,35%	0,87%	0,00%
Cloud Solutions, SAS	55000	15000	15000	20000	15000	15000	19,12%	22,63%	55,94%	0,64%	0,07%	1,60%
Think Productivity, Ltd	320000	310000	260000	220000	230000	190000	75,80%	7,29%	14,65%	0,36%	1,84%	0,06%
Ideias e Imagens, Lda	8000	5000	8000	4000	9000	4000	67,24%	18,31%	9,86%	4,59%	0,00%	0,00%
Allthings, Ltd	9000	10000	15000	15000	15000	10000	51,23%	16,96%	28,67%	2,99%	0,15%	0,00%
NewtonIdeas, LLC	35000	15000	20000	25000	30000	25000	57,99%	17,03%	20,47%	0,73%	3,78%	0,00%
DynaDo	15000	15000	8000	5000	7000	3000	37,32%	47,53%	9,55%	2,69%	2,90%	0,00%
MetaLab Design, Ltd	250000	220000	280000	430000	350000	290000	61,20%	24,73%	9,62%	2,23%	2,15%	0,07%
Human Computer, LLC	140000	110000	120000	110000	120000	110000	70,53%	9,36%	19,06%	0,62%	0,41%	0,01%
HyperOffice	70000	75000	80000	65000	70000	90000	48,74%	29,93%	20,16%	0,81%	0,37%	0,00%
AroFlo, Pty Ltd	0	0	0	500	15000	35000	33,75%	61,51%	4,40%	0,25%	0,10%	0,00%
Intuit, Inc	440000	530000	410000	390000	410000	390000	33,20%	13,60%	51,92%	0,87%	0,32%	0,09%
Swift Software, Inc	2000	1000	2000	2000	5000	2000	19,81%	3,74%	40,66%	35,79%	0,00%	0,00%
Projectplace International AB	330000	200000	240000	230000	230000	220000	57,86%	31,75%	7,08%	0,91%	2,37%	0,03%
Doist	40000	40000	45000	55000	50000	40000	71,67%	22,07%	5,02%	0,19%	1,05%	0,00%
Wrike, Inc	4250000	4450000	5200000	4300000	4100000	3300000	58,41%	24,56%	10,10%	1,10%	5,80%	0,03%
ProActive Software, Ltd	55000	35000	40000	35000	30000	30000	38,74%	15,27%	44,83%	0,31%	0,30%	0,56%
Project Bubble, LLC	65000	60000	85000	90000	100000	80000	53,76%	35,70%	5,33%	0,43%	4,78%	0,00%
Trello, Inc	15800000	20500000	33800000	33100000	34800000	32100000	77,54%	14,33%	5,07%	1,03%	2,02%	0,00%
Bitrix, Inc	1550000	1700000	2050000	3050000	2850000	2450000	15,76%	62,26%	12,48%	2,09%	7,07%	0,35%
Gdiz, LLC	20000	15000	15000	9000	6000	4000	45,45%	44,86%	7,85%	1,85%	0,00%	0,00%
Planbox, Inc	80000	60000	60000	50000	50000	35000	49,38%	30,19%	17,64%	0,28%	2,51%	0,00%
Citrix Systems, Inc	5700000	5950000	6400000	6000000	5550000	4350000	52,91%	36,44%	4,49%	2,34%	3,79%	0,02%
6 Wunderkinder, GmbH	13700000	13900000	15300000	14700000	14800000	13100000	69,73%	17,42%	7,85%	1,05%	3,95%	0,00%
Smartsheet.com, Inc	6700000	7250000	7450000	6800000	6750000	6050000	52,50%	23,88%	15,60%	1,05%	6,88%	0,10%
Avaza Software, Pty Ltd	3000	6000	7000	10000	5000	8000	62,51%	14,77%	22,45%	0,26%	0,00%	0,00%
Sandglaz, Inc	55000	45000	45000	35000	35000	35000	39,47%	8,07%	51,57%	0,80%	0,09%	0,00%
PPMLite, LLC	50000	40000	45000	45000	40000	45000	70,57%	19,10%	9,87%	0,19%	0,27%	0,00%
Disarea, LLC	4000	6000	2000	7000	8000	6000	31,38%	47,80%	16,37%	0,65%	3,73%	0,07%
AdminiTrack, Inc	20000	15000	20000	15000	15000	15000	49,89%	37,42%	12,23%	0,39%	0,03%	0,03%
semYou, GmbH	*SimilarWeb: Data is not available for this domain. That site either doesn't exist or is not yet part of our database.*											
Orbisoft Corporation.	*SimilarWeb: NOT ENOUGH DATA*											
Pro DBX	*SimilarWeb: Data is not available for this domain. NOT ENOUGH DATA (not loading)*											
The Everest System, Inc	*Not all types of data available*											
teamfocus, Pty Ltd	*SimilarWeb: Data is not available for this domain. NOT ENOUGH DATA (not loading)*											
Lodestar Technology Labs, LLC	*SimilarWeb: NOT ENOUGH DATA*											
Pinpoint Software, Inc	*SimilarWeb: NOT ENOUGH DATA*											
TrackRay	*Not all types of data available*											
Task Solutions	*SimilarWeb: Data is not available for this domain. That site either doesn't exist or is not yet part of our database.*											
TGMT-Systems	*SimilarWeb: Data is not available for this domain. NOT ENOUGH DATA (not loading)*											
Issue Simple	*SimilarWeb: NOT ENOUGH DATA*											
ProcessGene, Ltd	*SimilarWeb: Data is not available for this domain. That site either doesn't exist or is not yet part of our database.*											
Bolste, Inc	*SimilarWeb: NOT ENOUGH DATA*											
PlanDone	*SimilarWeb: Data is not available for this domain. That site either doesn't exist or is not yet part of our database.*											
KissIQ	*SimilarWeb: NOT ENOUGH DATA*											

Data avaialble for 36 out of 51 companies

Source: Data collected by the author

Appendix 4 continued.

Software vendors	Top 5	Facebook	Twitter	LinkedIn	Others	For the three months period Ad networks	Paid keywords	Organic search	Paid search
Atlassian, Pty Ltd	yes	18,21%	12,09%	*unknown*		yes	yes	97,90%	2,10%
DORG Projektid, OÜ	yes	11,86%	86,82%	0,36%	0,96%	no	no	100%	
Visionera AB	no	90,53%	0,00%	0,00%	9,47%	no	yes	90,60%	9,40%
Zoho Corporation, Pvt Ltd	yes	51,86%	5,93%	8,26%	33,95%	yes	yes	95,38%	4,62%
Stand By Soft, Ltd	no	1,98%	0,00%	0,00%	98,02%	no	no	100%	
A51, DOO	yes	45,25%	26,59%	*unknown*		yes	yes	97,79%	2,21%
Countersoft, Ltd	no	52,16%	0,00%	0,00%	47,84%	no	no	100%	
Cloud Solutions, SAS	no	62,32%	30,64%	0,00%	7,04%	yes	yes	75,43%	24,57%
Think Productivity, Ltd	yes	61,36%	10,36%	*unknown*		yes	yes	99,48%	0,52%
Ideias e Imagens, Lda	no	6,37%	19,43%	0,00%	74,20%	no	no	100%	
Allthings, Ltd	yes	31,45%	34,94%	23,07%	10,54%	no	no	100%	
NewtonIdeas, LLC	yes	69,16%	3,25%	3,67%	23,92%	no	no	100%	
DynaDo	no	76,83%	18,04%	0,00%	5,13%	no	no	100%	
MetaLab Design, Ltd	yes	61,74%	23,95%	*unknown*		yes	yes	98,35%	1,65%
Human Computer, LLC	yes	9,00%	*unknown*	*unknown*		yes	yes	99,45%	0,55%
HyperOffice	yes	7,36%	*unknown*	*unknown*		no	no	100%	
AroFlo, Pty Ltd	no	16,87%	0,00%	0,00%	83,13%	no	yes	93,99%	6,01%
Intuit, Inc	yes	35,20%	18,40%	*unknown*		yes	yes	85,92%	14,08%
Swift Software, Inc	no	0,00%	0,00%	18,68%	81,32%	no	no	100%	
Projectplace International AB	yes	43,20%	5,68%	22,09%	29,03%	yes	yes	99,57%	0,43%
Doist	yes	61,63%	0,00%	0,00%	38,37%	no	no	100%	
Wrike, Inc	yes	45,32%	10,92%	9,44%	34,32%	yes	yes	81,68%	18,31%
ProActive Software, Ltd	no	67,73%	0,00%	32,27%	0,00%	yes	yes	78,87%	21,13%
Project Bubble, LLC	yes	47,79%	23,79%	5,89%	22,53%	no	no	100%	
Trello, Inc	yes	39,24%	15,44%	*unknown*		no	no	100%	
Bitrix, Inc	yes	60,26%	3,26%	2,38%	34,10%	yes	yes	73,97%	26,03%
Gdiz, LLC	yes	19,43%	64,49%	0,00%	16,08%	no	no	100%	
Planbox, Inc	yes	41,03%	6,94%	*unknown*		no	yes	99,59%	0,41%
Citrix Systems, Inc	yes	80,17%	2,09%	3,00%	14,74%	yes	yes	93,07%	6,93%
6 Wunderkinder, GmbH	yes	47,17%	13,62%	*unknown*		yes	no	100%	
Smartsheet.com, Inc	yes	48,40%	5,89%	9,48%	36,23%	yes	yes	87,32%	12,68%
Avaza Software, Pty Ltd	no	69,35%	0,00%	30,65%	0,00%	no	yes	98,98%	1,02%
Sandglaz, Inc	yes	*unknown*	*unknown*	*unknown*		no	no	100%	
PPMLite, LLC	yes	0,00%	59,84%	6,52%	33,64%	no	no	100%	
Disarea, LLC	no	45,38%	0,00%	0,00%	54,62%	yes	no	100%	
AdminiTrack, Inc	no	0,00%	0,00%	0,00%	100,00%	yes	no	100%	
semYou, GmbH	*SimilarWeb: Data is not available for this domain. That site either doesn't exist or is not yet part of our database*								
Orbisoft Corporation.	*SimilarWeb: NOT ENOUGH DATA*								
Pro DBX	*SimilarWeb: Data is not available for this domain. NOT ENOUGH DATA (not loading)*								
The Everest System, Inc	*Not all types of data available*								
teamfocus, Pty Ltd	*SimilarWeb: Data is not available for this domain. NOT ENOUGH DATA (not loading)*								
Lodestar Technology Labs, LLC	*SimilarWeb: NOT ENOUGH DATA*								
Pinpoint Software, Inc	*SimilarWeb: NOT ENOUGH DATA*								
TrackRay	*Not all types of data available*								
Task Solutions	*SimilarWeb: Data is not available for this domain. That site either doesn't exist or is not yet part of our database*								
TGMT-Systems	*SimilarWeb: Data is not available for this domain. NOT ENOUGH DATA (not loading)*								
Issue Simple	*SimilarWeb: NOT ENOUGH DATA*								
ProcessGene, Ltd	*SimilarWeb: Data is not available for this domain. That site either doesn't exist or is not yet part of our database*								
Bolste, Inc	*SimilarWeb: NOT ENOUGH DATA*								
PlanDone	*SimilarWeb: Data is not available for this domain. That site either doesn't exist or is not yet part of our database*								
KissIQ	*SimilarWeb: NOT ENOUGH DATA*								

Data avaialble for 36 out of 51 companies

Source: Data collected by the author

Social network traffic is from top five listed social networks only. If the social network not in top five listed, then data is not available and marked as “unknown”. If there is less than five listed, then missing network source is considered to be marked as “0,00%” traffic.

Appendix 5. Processed data related to characteristics of software vendors

	Relative to the year -> 2015			*Based on number of employees from LinkedIn*	
Software vendors	**Founded**	**Years in business**	**Employees**	**Vendor size**	**Comments on the year founded**
Atlassian	2002	13	1001-5000	Very Big	*Year data is from LinkedIn*
DORG Projektid, OÜ	2014	1	11-50	Medium	*Year data is from LinkedIn*
Visionera AB	2001	14	1-10	Small	*Year data is from LinkedIn*
Zoho Corporation, Pvt Ltd	1996	19	1001-5000	Very Big	*Year data is from LinkedIn*
Stand By Soft, Ltd	1997	18	1-10	Small	*Year data is from LinkedIn*
A51, DOO	2007	8	11-50	Medium	*Year data is from LinkedIn*
Countersoft, Ltd	2003	12	11-50	Medium	*Year data is from LinkedIn*
Cloud Solutions, SAS	2010	5	11-50	Medium	*Year data is from LinkedIn*
Think Productivity, Ltd	2011	4	1-10	Small	*Year data is from LinkedIn*
Ideias e Imagens, Lda	2014	1	1-10	Small	*Year data is from LinkedIn*
Allthings, Ltd	2013	2	1-10	Small	*Year data is from LinkedIn*
NewtonIdeas, LLC	2007	8	1-10	Small	*Year data is from LinkedIn*
DynaDo	2010	5	11-50	Medium	*Year data is from LinkedIn*
MetaLab Design, Ltd	2006	9	11-50	Medium	*Year data is from LinkedIn*
Human Computer, LLC	2008	7	1-10	Small	*Year data is from LinkedIn*
HyperOffice	1998	17	11-50	Medium	*Year data is from official website*
AroFlo, Pty Ltd	2001	14	11-50	Medium	*Year data is from LinkedIn*
Intuit, Inc	1983	32	201-500	Big	*Year data is from Capterra*
Swift Software, Inc	2004	11	11-50	Medium	*Year data is from LinkedIn*
Projectplace International AB	1998	17	51-200	Big	*Year data is from LinkedIn*
semYou, GmbH	2008	7	1001-5000	Very Big	*Year data is from LinkedIn*
Doist	2007	8	11-50	Medium	*Year data is from LinkedIn*
Orbisoft Corporation.	1996	19	11-50	Medium	*Year data is from LinkedIn*
Pro DBX	2013	2	11-50	Medium	*Year data is from LinkedIn*
The Everest System, Inc	2014	1	1-10	Small	*Year data is from LinkedIn*
teamfocus, Pty Ltd	2010	5	1-10	Small	*Year data is from LinkedIn*
Lodestar Technology Labs, LLC	2007	8	11-50	Medium	*Year data is from LinkedIn*
Pinpoint Software, Inc	2011	4	1-10	Small	*Year data is from LinkedIn*
Wrike, Inc	2003	12	201-500	Big	*Year data is from LinkedIn*
ProActive Software, Ltd	2002	13	11-50	Medium	*Year data is from CrunchBase*
Project Bubble, LLC	2009	6	1-10	Small	*Year data is from LinkedIn*
Trello, Inc	2011	4	51-200	Big	*Year data is from CrunchBase*
Bitrix, Inc	1998	17	51-200	Big	*Year data is from LinkedIn*
Gdiz, LLC	2005	10	11-50	Medium	*Year data is from LinkedIn*
Planbox, Inc	1999	16	11-50	Medium	*Year data is from LinkedIn*
Citrix Systems, Inc	1989	26	5001-10,000	Very Big	*Year data is from LinkedIn*
6 Wunderkinder, GmbH	2010	5	51-200	Big	*Year data is from LinkedIn*
Smartsheet.com, Inc	2005	10	201-500	Big	*Year data is from LinkedIn*
Avaza Software, Pty Ltd	2014	1	1-10	Small	*Year data is from LinkedIn*
Sandglaz, Inc	2011	4	1-10	Small	*Year data is from LinkedIn*
PPMLite, LLC	2012	3	1-10	Small	*Year data is from LinkedIn*
AdminiTrack, Inc	2000	15	11-50	Medium	*Year data is from LinkedIn*
ProcessGene, Ltd	2004	11	11-50	Medium	*Year data is from LinkedIn*
Bolste, Inc	2015	0	1-10	Small	*Year data is from Capterra*
TrackRay	1993		*no data*		*Year data is from Capterra*
Task Solutions	2005		*no data*		*Year data is from Capterra*
TGMT-Systems	1998		*no data*		*Year data is from Capterra*
Issue Simple	2015		*no data*		*Year data is from Capterra*
PlanDone	2006		*no data*		*Year data is from official website*
Disarea, LLC	*no data*		*no data*		*No reliable sources for year data*
KissIQ	2015		*no data*		*Year data is from Capterra*

44 out of 51 software vendors are selected for the analyses

Source: Data collected and processed by the author

Appendix 6. Processed data related to desktop traffic from different sources

Total estimated visits for the period	Desktop traffic from different sources (September - November 2015)												
Software vendors	from Sep. to Nov.	Direct	<- visits	Links	<- visits	Search	<- visits	Social	<- visits	Email	<- visits	Display	<- visits
Atlassian, Pty Ltd	25900000	25,15%	6513850	15,41%	3991190	56,55%	14646450	1,60%	414400	1,13%	292670	0,16%	41440
DORG Projektid, O	26000	35,61%	9259	31,47%	8182	4,97%	1292	27,85%	7241	0,11%	29	0,00%	0
Visionera AB	32000	41,12%	13158	55,17%	17654	3,36%	1075	0,11%	35	0,24%	77	0,00%	0
Zoho Corporation,	81000000	47,39%	38385900	36,22%	29338200	9,83%	7962300	1,56%	1263600	4,97%	4025700	0,04%	32400
Stand By Soft, Ltd	40000	35,98%	14392	13,24%	5296	48,32%	19328	2,04%	816	0,43%	172	0,00%	0
A51, DOO	860000	57,06%	490716	27,33%	235038	9,26%	79636	2,04%	17544	4,27%	36722	0,04%	344
Countersoft, Ltd	25000	36,56%	9140	27,67%	6918	33,55%	8388	1,35%	338	0,87%	218	0,00%	0
Cloud Solutions, S/	50000	19,12%	9560	22,63%	11315	55,94%	27970	0,64%	320	0,07%	35	1,60%	800
Think Productivity,	640000	75,80%	485120	7,29%	46656	14,65%	93760	0,36%	2304	1,84%	11776	0,06%	384
Ideias e Imagens, I	17000	67,24%	11431	18,31%	3113	9,86%	1676	4,59%	780	0,00%	0	0,00%	0
Allthings, Ltd	40000	51,23%	20492	16,96%	6784	28,67%	11468	2,99%	1196	0,15%	60	0,00%	0
NewtonIdeas, LLC	80000	57,99%	46392	17,03%	13624	20,47%	16376	0,73%	584	3,78%	3024	0,00%	0
DynaDo	15000	37,32%	5598	47,53%	7130	9,55%	1433	2,69%	404	2,90%	435	0,00%	0
MetaLab Design, Lt	1070000	61,20%	654840	24,73%	264611	9,62%	102934	2,23%	23861	2,15%	23005	0,07%	749
Human Computer,	340000	70,53%	239802	9,36%	31824	19,06%	64804	0,62%	2108	0,41%	1394	0,01%	34
HyperOffice	225000	48,74%	109665	29,93%	67343	20,16%	45360	0,81%	1823	0,37%	833	0,00%	0
AroFlo, Pty Ltd	50500	33,75%	17044	61,51%	31063	4,40%	2222	0,25%	126	0,10%	51	0,00%	0
Intuit, Inc	1190000	33,20%	395080	13,60%	161840	51,92%	617848	0,87%	10353	0,32%	3808	0,09%	1071
Swift Software, Inc	9000	19,81%	1783	3,74%	337	40,66%	3659	35,79%	3221	0,00%	0	0,00%	0
Projectplace Interr	680000	57,86%	393448	31,75%	215900	7,08%	48144	0,91%	6188	2,37%	16116	0,03%	204
Doist	145000	71,67%	103922	22,07%	32002	5,02%	7279	0,19%	276	1,05%	1523	0,00%	0
Wrike, Inc	11700000	58,41%	6833970	24,56%	2873520	10,10%	1181700	1,10%	128700	5,80%	678600	0,03%	3510
ProActive Software	95000	38,74%	36803	15,27%	14507	44,83%	42589	0,31%	295	0,30%	285	0,56%	532
Project Bubble, LL(	270000	53,76%	145152	35,70%	96390	5,33%	14391	0,43%	1161	4,78%	12906	0,00%	0
Trello, Inc	100000000	77,54%	77540000	14,33%	14330000	5,07%	5070000	1,03%	1030000	2,02%	2020000	0,00%	0
Bitrix, Inc	8350000	15,76%	1315960	62,26%	5198710	12,48%	1042080	2,09%	174515	7,07%	590345	0,35%	29225
Gdiz, LLC	19000	45,45%	8636	44,86%	8523	7,85%	1492	1,85%	352	0,00%	0	0,00%	0
Planbox, Inc	135000	49,38%	66663	30,19%	40757	17,64%	23814	0,28%	378	2,51%	3389	0,00%	0
Citrix Systems, Inc	15900000	52,91%	8412690	36,44%	5793960	4,49%	713910	2,34%	372060	3,79%	602610	0,02%	3180
6 Wunderkinder, G	42600000	69,73%	29704980	17,42%	7420920	7,85%	3344100	1,05%	447300	3,95%	1682700	0,00%	0
Smartsheet.com, I	19600000	52,50%	10290000	23,88%	4680480	15,60%	3057600	1,05%	205800	6,88%	1348480	0,10%	19600
Avaza Software, Pt	23000	62,51%	14377	14,77%	3397	22,45%	5164	0,26%	60	0,00%	0	0,00%	0
Sandglaz, Inc	105000	39,47%	41444	8,07%	8474	51,57%	54149	0,80%	840	0,09%	95	0,00%	0
PPMLite, LLC	130000	70,57%	91741	19,10%	24830	9,87%	12831	0,19%	247	0,27%	351	0,00%	0
Disarea, LLC	21000	31,38%	6590	47,80%	10038	16,37%	3438	0,65%	137	3,73%	783	0,07%	15
AdminiTrack, Inc	45000	49,89%	22451	37,42%	16839	12,23%	5504	0,39%	176	0,03%	14	0,03%	14
Total visits:	311427500		182462047		75017361		38336161		4119536		11358202		133501
% of total:	100,00%		58,59%		24,09%		12,31%		1,32%		3,65%		0,04%

Source: Data collected and processed by the author

Total number of estimated visitors for the period from September to November of 2015 is calculated for the each website. Based on the data regarding the desktop traffic from different sources, the number of visitors is calculated for the each website across all six traffic sources. The total number of visitors is calculated for each traffic source across all selected software vendors. Percentages are determined in relation to the total number of visits from the period.

Appendix 7. Processed data related to activity on corporate blogs

Software vendors	Total posts	Date of newest post	Date of oldest post	Time blog is active: Years	Months	Frequency	09.12.2015 Days since newest post	<- Relative to the date: Up to date	Within a week	Within two weeks
Atlassian, Pty Ltd	3776	09.12.2015	27.01.2002	13	167	23	0	yes	yes	yes
DORG Projektid, O	26	09.12.2015	17.06.2015	0	6	4	0	yes	yes	yes
Zoho Corporation,	126	17.11.2015	25.08.2006	9	111	1	22			
Stand By Soft, Ltd	169	03.11.2015	13.11.2008	7	84	2	36			
A51, DOO	24	17.11.2015	03.06.2015	0	5	5	22			
Countersoft, Ltd	22	16.11.2015	29.09.2014	1	14	2	23			
Cloud Solutions, S/	26	30.10.2015	15.02.2012	3	44	1	40			
Think Productivity,	82	04.12.2015	06.03.2013	2	33	2	5		yes	yes
Allthings, Ltd	25	05.11.2015	15.04.2015	0	7	4	34			
MetaLab Design, Lt	11	03.12.2015	24.09.2015	0	3	4	6		yes	yes
Human Computer,	53	04.09.2015	11.03.2010	5	66	1	96			
HyperOffice	116	15.05.2014	11.10.2006	8	91	1	573			
Intuit, Inc	1840	09.12.2015	03.05.2005	10	127	14	0	yes	yes	yes
Swift Software, Inc	114	07.12.2015	18.11.2010	5	61	2	2		yes	yes
Projectplace Interr	215	01.12.2015	12.11.2009	6	73	3	8			yes
semYou, GmbH	15	05.12.2015	19.05.2015	0	7	2	4		yes	yes
Orbisoft Corporati	3	09.02.2015	18.09.2014	1	5	1	303			
Pro DBX	30	25.11.2015	13.10.2015	0	1	30	14			yes
teamfocus, Pty Ltd	19	18.05.2015	04.02.2014	1	15	1	205			
Lodestar Technolo	4	17.01.2010	27.12.2009	1	1	4	2152			
Pinpoint Software,	97	10.07.2015	18.11.2013	2	20	5	152			
Wrike, Inc	996	09.12.2015	29.08.2006	9	112	9	0	yes	yes	yes
ProActive Software	352	30.11.2015	22.01.2006	9	118	3	9			yes
Bitrix, Inc	301	09.12.2015	24.04.2012	3	44	7	0	yes	yes	yes
Gdiz, LLC	22	02.11.2013	09.10.2012	1	13	2	767			
Planbox, Inc	8	27.11.2015	12.07.2015	0	4	2	12			yes
Citrix Systems, Inc	428	09.12.2015	25.03.2011	4	57	8	0	yes	yes	yes
6 Wunderkinder, G	155	02.12.2015	08.11.2010	5	61	3	7		yes	yes
Smartsheet.com, I	494	08.12.2015	13.11.2007	8	97	5	1		yes	yes
Avaza Software, Pt	12	17.11.2015	14.08.2014	1	15	1	22			
Sandglaz, Inc	274	01.09.2015	11.01.2011	4	56	5	99			
Disarea, LLC	88	01.12.2015	27.09.2010	5	63	1	8			yes
Ideias e Imagens, L	68	*No dates attached to the posts*								
DynaDo	20	*No dates attached to the posts*								
The Everest Systen	18	*No dates attached to the posts*								
Project Bubble, LL	187	*No dates attached to the posts*								
Trello, Inc	179	*Dates attached only to portion of posts*								
AdminiTrack, Inc	45	*No dates attached to the posts*								
Average posts:	275			**Average frequency:**	5		**Percentage:**	19%	38%	53%
Extreme values:	3, 3776			**Extreme values:**	30, 23, 14					

Source: Data collected and processed by the author

Appendix 8. Processed data related to search traffic

35 selected for the analyses			Paid					
Software vendors	**Search**	**<- visits**	**keywords**	**Organic**	**<- visits**		**Paid <- visits**	**Vendor size**
DORG Projektid, OÜ	4,97%		no	100%				Medium
Stand By Soft, Ltd	48,32%		no	100%				Small
Countersoft, Ltd	33,55%		no	100%				Medium
Ideias e Imagens, Lda	9,86%		no	100%				Small
Allthings, Ltd	28,67%		no	100%				Small
NewtonIdeas, LLC	20,47%		no	100%				Small
DynaDo	9,55%		no	100%				Medium
HyperOffice	20,16%		no	100%				Medium
Swift Software, Inc	40,66%		no	100%				Medium
Doist	5,02%		no	100%				Medium
Project Bubble, LLC	5,33%		no	100%				Small
Trello, Inc	5,07%		no	100%				Big
Gdiz, LLC	7,85%		no	100%				Medium
6 Wunderkinder, GmbH	7,85%		no	100%				Big
Sandglaz, Inc	51,57%		no	100%				Small
PPMLite, LLC	9,87%		no	100%				Small
AdminiTrack, Inc	12,23%		no	100%				Medium
Atlassian, Pty Ltd	56,55%	14646450	yes	97,90%	14338875	2,10%	307575	Very Big
Visionera AB	3,36%	1075	yes	90,60%	974	9,40%	101	Small
Zoho Corporation, Pvt Ltd	9,83%	7962300	yes	95,38%	7594442	4,62%	367858	Very Big
A51, DOO	9,26%	79636	yes	97,79%	77876	2,21%	1760	Medium
Cloud Solutions, SAS	55,94%	27970	yes	75,43%	21098	24,57%	6872	Medium
Think Productivity, Ltd	14,65%	93760	yes	99,48%	93272	0,52%	488	Small
MetaLab Design, Ltd	9,62%	102934	yes	98,35%	101236	1,65%	1698	Medium
Human Computer, LLC	19,06%	64804	yes	99,45%	64448	0,55%	356	Small
AroFlo, Pty Ltd	4,40%	2222	yes	93,99%	2088	6,01%	134	Medium
Intuit, Inc	51,92%	617848	yes	85,92%	530855	14,08%	86993	Big
Projectplace International AB	7,08%	48144	yes	99,57%	47937	0,43%	207	Big
Wrike, Inc	10,10%	1181700	yes	81,68%	965213	18,31%	216369	Big
ProActive Software, Ltd	44,83%	42589	yes	78,87%	33590	21,13%	8999	Medium
Bitrix, Inc	12,48%	1042080	yes	73,97%	770827	26,03%	271253	Big
Planbox, Inc	17,64%	23814	yes	99,59%	23716	0,41%	98	Medium
Citrix Systems, Inc	4,49%	713910	yes	93,07%	664436	6,93%	49474	Very Big
Smartsheet.com, Inc	15,60%	3057600	yes	87,32%	2669896	12,68%	387704	Big
Avaza Software, Pty Ltd	22,45%	5164	yes	98,98%	5111	1,02%	53	Small
Disarea, LLC	16,37%	3438	no	100%				*no data*
Total visits:		29713999			28005889		1707993	
Percentage of total:		100,0%			94,3%		5,7%	
Percentage of paid keywords:			51%					

Source: Data collected and processed by the author

Appendix 9. Processed data related to display advertising traffic

35 companies selected for the analyses

Software vendors	from Sep. to Nov.	Display	<- visits	Ad networks	Vendor size
DORG Projektid, OÜ		0,00%	0	no	Medium
Visionera AB		0,00%	0	no	Small
Stand By Soft, Ltd		0,00%	0	no	Small
Countersoft, Ltd		0,00%	0	no	Medium
Ideias e Imagens, Lda		0,00%	0	no	Small
Allthings, Ltd		0,00%	0	no	Small
NewtonIdeas, LLC		0,00%	0	no	Small
DynaDo		0,00%	0	no	Medium
HyperOffice		0,00%	0	no	Medium
AroFlo, Pty Ltd		0,00%	0	no	Medium
Swift Software, Inc		0,00%	0	no	Medium
Doist		0,00%	0	no	Medium
Project Bubble, LLC		0,00%	0	no	Small
Trello, Inc		0,00%	0	no	Big
Gdiz, LLC		0,00%	0	no	Medium
Planbox, Inc		0,00%	0	no	Medium
Avaza Software, Pty Ltd		0,00%	0	no	Small
Sandglaz, Inc		0,00%	0	no	Small
PPMLite, LLC		0,00%	0	no	Small
Atlassian, Pty Ltd	25900000	0,16%	41440	yes	Very Big
Zoho Corporation, Pvt Ltd	81000000	0,04%	32400	yes	Very Big
A51, DOO	860000	0,04%	344	yes	Medium
Cloud Solutions, SAS	50000	1,60%	800	yes	Medium
Think Productivity, Ltd	640000	0,06%	384	yes	Small
MetaLab Design, Ltd	1070000	0,07%	749	yes	Medium
Human Computer, LLC	340000	0,01%	34	yes	Small
Intuit, Inc	1190000	0,09%	1071	yes	Big
Projectplace International AB	680000	0,03%	204	yes	Big
Wrike, Inc	11700000	0,03%	3510	yes	Big
ProActive Software, Ltd	95000	0,56%	532	yes	Medium
Bitrix, Inc	8350000	0,35%	29225	yes	Big
Citrix Systems, Inc	15900000	0,02%	3180	yes	Very Big
6 Wunderkinder, GmbH	42600000	0,00%	0	yes	Big
AdminiTrack, Inc	45000	0,03%	14	yes	Medium
Smartsheet.com, Inc	19600000	0,10%	19600	yes	Big
Disarea, LLC	21000	0,07%	15	yes	*no data*
Total:	210020000		133487		
Percentage:	100,00%		0,06%	46%	

Source: Data collected and processed by the author

Appendix 10. Processed data related to e-mail traffic

35 selected for the analyses

Software vendors	from Sep. to Nov.	Traffic	Email	<- visits	Vendor size
Ideias e Imagens, Lda		no	0,00%		Small
Swift Software, Inc		no	0,00%		Medium
Gdiz, LLC		no	0,00%		Medium
Avaza Software, Pty Ltd		no	0,00%		Small
Atlassian, Pty Ltd	25900000	Yes	1,13%	292670	Very Big
DORG Projektid, OÜ	26000	Yes	0,11%	29	Medium
Visionera AB	32000	Yes	0,24%	77	Small
Zoho Corporation, Pvt Ltd	81000000	Yes	4,97%	4025700	Very Big
Stand By Soft, Ltd	40000	Yes	0,43%	172	Small
A51, DOO	860000	Yes	4,27%	36722	Medium
Countersoft, Ltd	25000	Yes	0,87%	218	Medium
Cloud Solutions, SAS	50000	Yes	0,07%	35	Medium
Think Productivity, Ltd	640000	Yes	1,84%	11776	Small
Allthings, Ltd	40000	Yes	0,15%	60	Small
NewtonIdeas, LLC	80000	Yes	3,78%	3024	Small
DynaDo	15000	Yes	2,90%	435	Medium
MetaLab Design, Ltd	1070000	Yes	2,15%	23005	Medium
Human Computer, LLC	340000	Yes	0,41%	1394	Small
HyperOffice	225000	Yes	0,37%	833	Medium
AroFlo, Pty Ltd	50500	Yes	0,10%	51	Medium
Intuit, Inc	1190000	Yes	0,32%	3808	Big
Projectplace International AB	680000	Yes	2,37%	16116	Big
Doist	145000	Yes	1,05%	1523	Medium
Wrike, Inc	11700000	Yes	5,80%	678600	Big
ProActive Software, Ltd	95000	Yes	0,30%	285	Medium
Project Bubble, LLC	270000	Yes	4,78%	12906	Small
Trello, Inc	100000000	Yes	2,02%	2020000	Big
Bitrix, Inc	8350000	Yes	7,07%	590345	Big
Planbox, Inc	135000	Yes	2,51%	3389	Medium
Citrix Systems, Inc	15900000	Yes	3,79%	602610	Very Big
6 Wunderkinder, GmbH	42600000	Yes	3,95%	1682700	Big
Smartsheet.com, Inc	19600000	Yes	6,88%	1348480	Big
Sandglaz, Inc	105000	Yes	0,09%	95	Small
PPMLite, LLC	130000	Yes	0,27%	351	Small
AdminiTrack, Inc	45000	Yes	0,03%	14	Medium
Disarea, LLC	21000	Yes	3,73%	783	no data
Total visits:	311338500			11357419	
Percentage:	100,00%	89%		3,65%	

Source: Data collected and processed by the author

Appendix 11. Processed data related to traffic from social networks

25 companies selected for the analyses

Software vendors	Social	<- visits	Facebook	<- visits	Twitter	<- visits	LinkedIn	<- visits	Others	<- visits
DORG Projektid, OÜ	27,85%	7241	11,86%	859	86,82%	6287	0,36%	26	0,96%	70
Visionera AB	0,11%	35	90,53%	32	0,00%	0	0,00%	0	9,47%	3
Zoho Corporation, Pvt Ltd	1,56%	1263600	51,86%	655303	5,93%	74931	8,26%	104373	33,95%	428992
Stand By Soft, Ltd	2,04%	816	1,98%	16	0,00%	0	0,00%	0	98,02%	800
Countersoft, Ltd	1,35%	338	52,16%	176	0,00%	0	0,00%	0	47,84%	161
Cloud Solutions, SAS	0,64%	320	62,32%	199	30,64%	98	0,00%	0	7,04%	23
Ideias e Imagens, Lda	4,59%	780	6,37%	50	19,43%	152	0,00%	0	74,20%	579
Allthings, Ltd	2,99%	1196	31,45%	376	34,94%	418	23,07%	276	10,54%	126
NewtonIdeas, LLC	0,73%	584	69,16%	404	3,25%	19	3,67%	21	23,92%	140
DynaDo	2,69%	404	76,83%	310	18,04%	73	0,00%	0	5,13%	21
AroFlo, Pty Ltd	0,25%	126	16,87%	21	0,00%	0	0,00%	0	83,13%	105
Swift Software, Inc	35,79%	3221	0,00%	0	0,00%	0	18,68%	602	81,32%	2619
Projectplace International AB	0,91%	6188	43,20%	2673	5,68%	351	22,09%	1367	29,03%	1796
Doist	0,19%	276	61,63%	170	0,00%	0	0,00%	0	38,37%	106
Wrike, Inc	1,10%	128700	45,32%	58327	10,92%	14054	9,44%	12149	34,32%	44170
ProActive Software, Ltd	0,31%	295	67,73%	199	0,00%	0	32,27%	95	0,00%	0
Project Bubble, LLC	0,43%	1161	47,79%	555	23,79%	276	5,89%	68	22,53%	262
Bitrix, Inc	2,09%	174515	60,26%	105163	3,26%	5689	2,38%	4153	34,10%	59510
Gdiz, LLC	1,85%	352	19,43%	68	64,49%	227	0,00%	0	16,08%	57
Citrix Systems, Inc	2,34%	372060	80,17%	298281	2,09%	7776	3,00%	11162	14,74%	54842
Smartsheet.com, Inc	1,05%	205800	48,40%	99607	5,89%	12122	9,48%	19510	36,23%	74561
Avaza Software, Pty Ltd	0,26%	60	69,35%	41	0,00%	0	30,65%	18	0,00%	0
PPMLite, LLC	0,19%	247	0,00%	0	59,84%	148	6,52%	16	33,64%	83
Disarea, LLC	0,65%	137	45,38%	62	0,00%	0	0,00%	0	54,62%	75
AdminiTrack, Inc	0,39%	176	0,00%	0	0,00%	0	0,00%	0	100,00%	176
Atlassian, Pty Ltd	1,60%		18,21%		12,09%		*unknown*			
A51, DOO	2,04%		45,25%		26,59%		*unknown*			
Think Productivity, Ltd	0,36%		61,36%		10,36%		*unknown*			
MetaLab Design, Ltd	2,23%		61,74%		23,95%		*unknown*			
Human Computer, LLC	0,62%		9,00%		*unknown*		*unknown*			
HyperOffice	0,81%		7,36%		*unknown*		*unknown*			
Intuit, Inc	0,87%		35,20%		18,40%		*unknown*			
Trello, Inc	1,03%		39,24%		15,44%		*unknown*			
Planbox, Inc	0,28%		41,03%		6,94%		*unknown*			
6 Wunderkinder, GmbH	1,05%		47,17%		13,62%		*unknown*			
Sandglaz, Inc	0,80%		*unknown*		*unknown*		*unknown*			
Total visits:		2168625		1222893		122621		153838		669274
Percentage of total:		100,0%		56,4%		5,7%		7,1%		30,9%

Source: Data collected and processed by the author

Appendix 12. Correlation analysis of data related to social networks

FB Softw	Profile	Estimated number of visits from Facebook	Total page likes	TWTR Softw	Profile	Estimated number of visits from Twitter	Tweets	Followers	Likes	LNKD Softw	Profile	Estimated number of visits from LinkedIn	Followers
Atlass	yes	75462	41902	Atlass	yes	50101	9367	46350	14	DORG	yes	26	22
DORG	yes	859	423	DORG	yes	6287	357	422	103	Visior	yes	0	61
Visior	yes	32	0	Visior	yes	0	152	87	3	Zoho	yes	104373	30250
Zoho	yes	655303	48660	Zoho	yes	74931	9530	24473	2463	Stand	yes	0	43
Stand	yes	16	309	Stand	yes	0	492	114	9	Count	yes	0	76
A51, I	yes	7939	2151	A51, I	yes	4665	3477	3903	3892	Cloud	yes	0	256
Count	yes	176	2116	Count	yes	0	1738	1530	16	Ideias	yes	0	31
Cloud	yes	199	51778	Cloud	yes	98	332	399	40	Allthi	yes	276	136
Think	yes	1414	899	Think	yes	239	1490	3101	637	Newt	yes	21	23
Ideias	yes	50	1066	Ideias	yes	152	3387	1031	659	Dynal	yes	0	69
Allthi	yes	376	1007	Allthi	yes	418	1745	1784	760	AroFl	yes	0	146
Newt	yes	404	437	Newt	yes	19	361	298	2	Swift	yes	602	103
Dynal	yes	310	202	Dynal	yes	73	441	515	9934	Proje	yes	1367	3853
Metal	yes	14732	2851	Metal	yes	5715	2757	3662	237	Doist	yes	0	769
Huma	yes	190	1208	AroFl	yes	0	178	40	4	Wrike	yes	12149	7324
Hyper	yes	134	237	Intuit	yes	1905	7333	4526	116	ProAc	yes	95	83
AroFl	yes	21	740	Swift	yes	0	368	84	11	Proje	yes	68	22
Intuit	yes	3644	3252	Proje	yes	351	2296	1163	219	Bitrix	yes	4153	234
Swift	yes	0	52	Doist	yes	0	138	206	0	Gdiz,	yes	0	48
Proje	yes	2673	2128	Wrike	yes	14054	6550	5988	634	Citrix	yes	11162	161591
Doist	yes	170	302	ProAc	yes	0	745	2443	42	Smart	yes	19510	6345
Wrike	yes	58327	10663	Proje	yes	276	3091	1251	55	Avaza	yes	18	11
ProAc	yes	199	4001	Trello	yes	159032	18045	97002	10981	PPML	yes	16	39
Proje	yes	555	495	Bitrix,	yes	5689	3425	2488	473	Admi	yes	0	9
Trello	yes	404172	57556	Gdiz,	yes	227	4912	242	66	Atlass	yes	*unknown*	45178
Bitrix,	yes	105163	4306	Planb	yes	26	2321	2434	135	A51, I	yes	*unknown*	171
Gdiz,	yes	68	114	Citrix	yes	7776	3928	16954	884	Think	yes	*unknown*	76
Planb	yes	155	507	6 Wur	yes	60922	14262	68912	9081	Metal	yes	*unknown*	875
Citrix	yes	298281	19768	Smart	yes	12122	8751	7934	1659	Huma	yes	*unknown*	6
6 Wur	yes	210991	72343	Avaza	yes	0	32	3940	3	Hyper	yes	*unknown*	362
Smart	yes	99607	8751	PPML	yes	148	77	124	8	Intuit	yes	*unknown*	1126
Avaza	yes	41	249	Disare	yes	0	1861	89	1	Trello	yes	*unknown*	3982
PPML	yes	0	5	Admi	yes	0	40	19	0	Planb	yes	*unknown*	220
Disare	yes	62	111	Huma	yes	*unknown*	453	383	0	6 Wur	yes	*unknown*	1485
Admi	yes	0	61	Hyper	yes	*unknown*	724	334	7	Sandg	yes	*unknown*	74
Sandg	yes	*unknown*	625	Sandg	yes	*unknown*	4142	2330	802	Disare	not found	0	

Source: Data collected and processed by the author

Correlation matrix for Facebook			Correlation matrix for Twitter					Correlation matrix for LinkedIn		
	visits from Facebook	*Total page likes*		*visits from Twitter*	*Tweets*	*Followers*	*Likes*		*visits from LinkedIn*	*Followers*
visits from Facebook	1		visits from Twitter	1				visits from LinkedIn	1	
Total page likes	0,690	1	Tweets	0,861	1			Followers	0,234	1
			Followers	0,935	0,884	1				
			Likes	0,676	0,620	0,710	1			

Source: Data processed by the author