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Social Media Evaluation Metrics

JEL Classification: M31; M39

Keywords: *social media marketing; social media metrics; social media evaluation; consumer purchase decision process*

Abstract: *Background. There are many methods how specialists can evaluate return of online marketing activities. Most of the methods out there are designed for versatile use, but each online marketing tool has its own unique specific metrics that should be taken into account when measuring the return of marketing activities. The Authors believe that the methods designed to evaluate online marketing activities should also be more specific. Hence, the Authors believe that more specific online marketing revenue determination methods should be proposed.*

Objectives. The aim of this paper is to propose a formula that can be used to evaluate the return of social media activities while taking into account different consumer purchase decision stages.

Methodology. To achieve the aim of this paper, following research methods were used: theoretical literature analysis, expert surveys, grouping and statistical analysis methods.

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Data. The proposed formula was based on the data that was collected from theoretical literature analysis and expert surveys.

Results. The main result of this paper was to propose a formula, which can calculate the return of social media activities while taking into account different consumer purchase decision stages.

Main contribution of the paper. This paper offers a new approach to evaluating the return of social media activities, depending on which purchase decision process stage online marketing activity was meant to influence. This paper can be used as a basis for further research where social media activity revenue evaluation methods are discussed. Marketing specialists can use this paper as an example of how to evaluate the return of social media activities.

Introduction

The popularity of social media network is increasing worldwide. In the first quarter of 2008, Facebook was used by approximately 100 million users, but in the 2014's fourth quarter the amount of Facebook users rose to 1393 million people (Statista, 2014). There are now 1.5 billion social media users reported globally. Also, at least 70 percent of companies based in the United States of America are using some form of social media (Michael Chul *et al.*, 2012, pp. 1-5). Social media networks have become an important part of marketing communication strategies. Therefore, it is advisable to pay more attention to social media channels' effectiveness.

Consumer purchase decision process has been analysed in terms of many different marketing aspects: the cultural (Chaudhry *et al.*, 2015, pp. 197-202) psychological (Samson & Voyer, 2014, pp. 21-33) and other ones. However, there have not been any research papers written on how to measure the social media marketing return while taking into account different consumer purchase decision stages.

Also, no research has been conducted on the importance of social media metrics when it comes to evaluating social media activities in Latvia.

The importance of social media marketing metrics can vary from country to country, so it is necessary to conduct research about social media marketing metrics' importance in different countries. No such studies have been conducted in Latvia so far.

In this article, the Authors will propose a formula and an approach to evaluating social media marketing activities, while taking into account different consumer purchase decision stages.

Background and motivation of the Study

The main reasons why the Authors chose to write about this topic are:

- Social media in Latvia has been used as a marketing tool to attract customers for many years. 69.5% of Latvia's population use social media networking sites on a regular basis, according to central statistical bureau of Latvia. Nevertheless, there are very few pieces of research conducted on social media marketing metrics in Latvia.
- Companies always have limited resources, and the main goal of a business is to use these resources as effectively as possible (Abubakar, 2011, pp. 45-59).
- Social media helps businesses connect with their customers more effectively, while spending less resources than when using more traditional communication tools (Kaplan & Haenlein, 2010, pp. 59-68).
- The proposed return evaluation formula will give a new perspective on how to create social media marketing campaigns.

Social media enables business organisations to connect with their customers at the right time, directly with lower cost and with higher efficiency than other traditional communication tools. The ease of use and availability of social media networks provide small and medium businesses with limitless marketing possibilities (Kaplan & Haenlein, 2010, pp. 59-68). Hence it is important to educate marketing specialists on how to calculate precisely the return of social media activities.

Research gap

Social media research based on the AIDA model have been conducted for small and medium businesses (Hassan *et al.*, 2015, pp. 262–269), but there have not been any social media studies that have taken into account M. Porter 5 stage consumer purchase decision process model. The Authors believe that by development of such a formula and an approach, they can help companies create more effective social media campaigns. As a result companies, can get higher return from their investments.

Literature Review

The marketing communications medium has evolved from print media, electronic media, to social media in cyberspace. More consumers are buying products online than ever before, while making decisions based on the information published on social media sites. This trend shows that consum-

ers tend to trust their friends and contacts in social media over the ads displayed by business organisations (Woodcock & Green, 2010).

Social media evaluation methods

Social media measurement methods are rather new, nevertheless they have evolved quickly. There are many approaches how social media activities can be evaluated.

While conducting the theoretical analysis, the Authors came across various social media evaluation methods. One of the methods proposes to use the following framework:

- User Analysis – In this stage, the audience has to be identified;
- User-Generated Content Analysis – An analysis of the audience communication must be conducted, to identify the topics that could attract the attention of the customers;
- Engagement Analysis – In this stage, the activities in social media must be identified;
- Benchmarking – Comparison between main competitors must be performed (Cvijikj *et al.*, 2013, pp. 10-12).

One of the approaches to evaluating social media marketing is tracking customer's investments, not the companies. When using this kind of approach, we evaluate social media metrics, such as number of unique visitors, number of return visits, search rankings etc. This kind of approach gives us the opportunity to evaluate the return of social media before any purchases have been made (Donna *et al.*, 2010, pp. 41-44).

The return of social media can also be determined by calculating traffic (unique visitors and page views), the stickiness (subscriptions via email, returning visitors), the visibility (link, search rankings and long-trail traffic), viralness (brand awareness), the engagement (comments) and income (Saleem, 2008).

Social media return can be evaluated also through social media insight tools. These tools are divided into 4 groups:

- Enterprise listening platforms – they collect all the public accessible information about consumer topics of interest;
- Text mining partners – this particular kind of platforms helps deciphering the meaning of social comments from different social platforms;
- Platform API (*application programming interface*) tools – these are niche social measurement tools that provides access to certain social media network insights;
- Site analytics solutions – these tools provide website visitor behaviour information (Murdough, 2009, pp. 96-98).

Social media effect on consumer purchase decision process has been researched in different ways. Dividing specific elements or in general (Hasan *et al.*, 2015, pp. 262-269).

Research Method

Methodological approach – to achieve the aim of the paper, several research methods were used:

- Theoretical literature analysis;
- Expert survey;
- Grouping;
- Statistical analysis methods.

With the help of theoretical literature analysis, data about most often used social media metrics was summarised, and the research gap was identified. The collected information about social media metrics was used as the basis for the expert survey. The expert survey was used to collect data from experts about the most frequently used and the most important social media metrics. The expert survey as a research method was chosen because qualitative research methods can obtain more extensive results than quantitative research methods (Taylor & Bogdan, 1998, pp. 102-130). This kind of approach provided researchers with additional information that helped to develop social media evaluation formula.

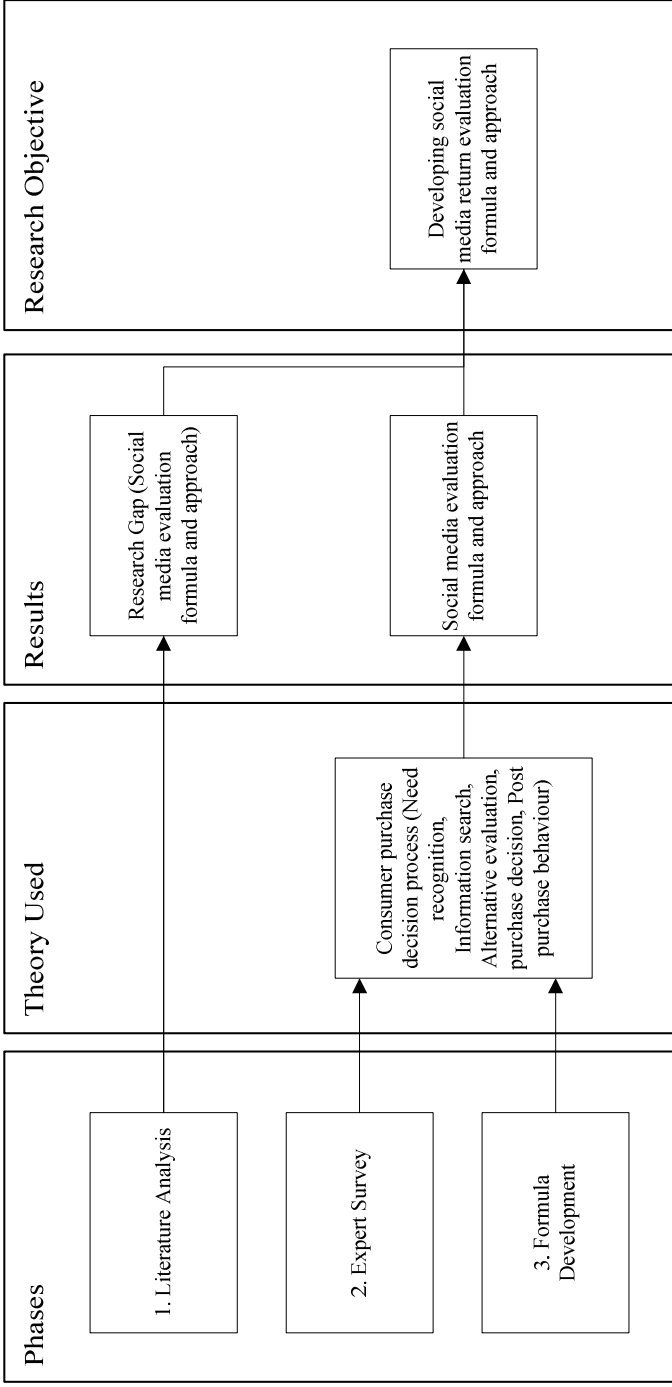
Research framework – To ensure that the objective of the study would be achieved by using previously mentioned research methodology, the research question, research objective, the research methods, and the results were formulated and presented in Table 1.

Table 1. Research framework

Research Question	Objective of the Study	Method	Result
How can we evaluate social media return while taking into account consumer purchase decision process?	Develop a formula and an approach that can evaluate the return of social media while taking into account consumer purchase decision process stages.	Theoretical literature analysis and expert surveying.	Formula and approach that can evaluate the return of social media while taking into account consumer purchase decision process.

Source: authors developed research framework based on the research questions, objectives, methods, and results.

Figure 1. Research Framework



Source: authors developed research framework based on the research.

Basing on the research mapping, a research framework was developed. The research framework consists of three phases, as shown in Figure 1. The phases are linked together by the theory that is used, the research results and by the research objective.

Expert survey

Data was collected from 28 marketing experts from Latvia's top companies. Demographic information about the experts is summarised in Table 2. The marketing expert survey was sent to the marketing directors, online marketing specialists, marketing managers and marketing specialists, a completion incentive was offered in the form of providing a summary of the study's results. Expert survey was chosen as one of the research methods because it allowed for collecting precise data in shorter amount of time in comparison to other methods (Kelley *et al.*, 2003, pp. 262).

Table 2. Demographic information of the Experts

Age Range	Type of Business	Position	Experience
Between 28 - 52 years	Manufacturing, IT outsourcing, Advertising, Telecommunications, Retail, Heat engineering, Consultation	Marketing specialists Online marketing speciliasts, Marketing managers, Marketing directors.	5-20 years

Source: own developed table based on the demographics of experts.

The experts were from various industrial sectors (e.g. manufacturing, IT, etc.) and represented some of the leading companies in Latvia. The companies that the experts worked for varied in terms of employee numbers from 1 to 250, with a turnover below 50 million euros, in line the EU definition of small and medium enterprises (European Commission, 2003).

During the first stage of expert survey, the authors contacted the experts by phone to discuss if they would like to participate in this survey. Due to the large amount of questions that had to be answered the survey was sent to them by email.

Twenty seven questionnaires were returned, 20 of them were fully completed. One expert was excluded from the sample, because he did not fully answer all the questions.

The questionnaire consisted of two parts, and included social media evaluation metrics based on the previous theoretical literature analysis.

The experts had to appraise the importance and usage frequency of the metrics in scale from 0.5 to 1.5 as 0.5 being not important/hardly used and 1.5 very important/used very often.

The collected data was grouped, so it could be used to test out the proposed formula. The expert survey results are shown in Table 1.

Table 3. Expert survey results

Social media metrics	Consumer purchase decision process									
	Need recognition		Information search		Alternative evaluation		Purchase decision		Post purchase behaviour	
	Im-portance	Usage frequen-cy	Im-portance	Usage frequen-cy	Im-portance	Usage frequen-cy	Im-portance	Usage frequen-cy	Im-portance	Usage frequen-cy
Bounce rate	1,2	1,03	1,3	1,12	1,2	1,08	1,34	1,12	1,38	1,07
Time spent on site	1,37	1,2	1,32	1,28	1,43	1,31	1,33	1,15	1,19	1,15
Unsubscribe rate	1,2	1,2	1,35	1,23	1,22	1,18	1,2	1,12	1,39	1,27
Comments	1,37	1,25	1,36	1,33	1,41	1,34	1,36	1,34	1,1	1,01
Followers	1,33	1,2	1,35	1,2	1,4	1,28	1,28	1,36	1,39	1,36
Shares	1,34	1,28	1,38	1,21	1,4	1,29	1,29	1,34	1,05	0,87
Likes	1,33	1,3	1,37	1,24	1,42	1,29	1,3	1,36	1,11	1,05
Visitors	1,38	1,25	1,41	1,37	1,2	1,1	1,32	1,2	1,1	1,1

Source: results collected from expert surveys.

From the expert survey results, we can see that the importance and usage frequency of social media metrics varies. Some of the metrics are more important or less important when evaluating certain consumer purchase decision process stage. From our results we can see that, for example, when evaluating the effectiveness of social media on consumer purchase stage information search, experts as the most important metrics stated likes, shares, visitors and comments, because these metrics indicate that customers have found what they have looked for and found the content useful.

As mentioned before, the usage frequency of the social media metrics varies. Some of the metrics that are more important than others are used less frequently than the metrics that are less important. Experts explained

this phenomenon as follows: sometimes it is hard to obtain the necessary metrics data, so others metrics are used as a substitute.

Findings

Social media evaluation formula – basing on the literature analysis and the expert survey, a formula which can be used to determine the social media return was developed. The formula takes into account the importance and usage frequency of a metric at different consumer purchase decision stages.

The following information was taken into consideration while developing the formula:

- Theoretical literature analysis about most often used social media metrics;
- Expert opinions about most frequently used and most important social media metrics;
- The consumer purchase decision process specifics;
- Similar research papers were analysed about social media and different consumer decision models (Hassan *et al.*, 2015, pp. 262-269);
- Authors’ personal experience.

Based on this information following formula was proposed:

$$Social\ media\ return = (a_1 * b_1) * \frac{Q * M}{L_i + L_d} + \dots + c_n \frac{v_n}{L_i + L_d} \quad (1)$$

Where:

a – The importance of a indicator, *b* - The indicators usage frequency, *v* - Total value of actions, *L_i* - Campaign development time, *L_d* - Campaign duration, *Q* – Total number of social media actions, *M* – Assumed worth of a action.

In this formula *a* is the expert opinion about how important the social media metric is when evaluating certain consumer purchase decision process stage.

With *b* the opinion of expert about social media metrics usage frequency is indicated.

Both of these indicators are multiplied (***a*b***). By multiplying these two indicators we get the value of the indicators or (***c***). This method is borrowed form risk analysis modelling. Where risk impact level is multiplied by risk probability. Authors suggest that previously collected expert survey results are used for this formula (see Table 3).

With v , the total value of actions is indicated. To calculate the total value of actions, we assume that every action is worth something. We define a worth for every action that has been taken. The worth of a action is multiplied by the total number of actions. With Q we refer to the total amount of social media metrics actions and with M , the assumed worth of an action.

$$v = Q * M \quad (2)$$

With L_i the Authors indicated the necessary time to prepare the social media activity, which means the time that is necessary for social media activity development from the planning till the launch is activity preparation time.

With L_d the social media activity duration is indicated. This is the time from social media activity launch till the end of the activity. The activity development time and activity duration is summarised and the total activity time is calculated. Each social media activity has its own development time and duration time. The social media activity that brings more return in shorter time of period is the most effective one.

The formula can be used in different countries. The only thing that has to be taken under consideration when using this formula outside of Latvia, the expert opinions may vary in different countries.

This formula was tested in one of the leading marketing companies in Latvia from 1. September 2015 till 1. September 2016, and is still being used for social media channel return evaluation. This formula was used to evaluate companies social media activities for different companies from different industries: retail, accounting, IT, marketing, financial service, etc.

The results showed that the formula helped to evaluate return of social media marketing activities more precisely. Consequently, more effective social media campaigns could be developed. As a result, companies got up to 10% better results from their social media activities.

Conclusions

This research is both practical and theoretical.

In practice, this paper can be used as an example of analysing the return of social media activities. This kind of approach will give marketing specialists more accurate results about the actual return of social media activities. Due to this approach, more precise marketing campaigns can be devel-

oped, which can target one of the five consumer purchase decision process stages. By achieving marketing goals more precisely, companies can increase their revenues.

Marketing specialists should take into account that the importance of a social media metric can vary depending on consumer purchase decision process stage they are evaluating. This can result in more precise social media channel return evaluation.

The theoretical contribution of this research is:

- This research paper increases the application possibilities of consumer purchase decision process model. Due to this research, we can see that the consumer purchase decision process model can be used as the base when evaluating digital marketing campaigns;
- A new social media return evaluation approach is presented.

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