



Institute of Economic Research Working Papers

No. 103/2015

Social media evaluation metrics

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The paper submitted to

**VIIIth INTERNATIONAL CONFERENCE ON APPLIED
ECONOMICS
CONTEMPORARY ISSUES IN ECONOMY
under the title
MARKET OR GOVERNMENT?**

Institute of Economic Research and Polish Economic Society Branch
in Toruń

18-19 June 18-19, 2015, Toruń, Poland

Toruń, Poland 2015

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JEL Classification: M31

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. Authors believe that the methods that are designed to evaluate online marketing activities should also be more specific. Hence 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 depending on consumer purchase decision process stage the online marketing activity was meant to influence.

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

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 determine the return of social media activities based on purchase decision process stage the social media activity was meant to influence.

Main contribution of the paper. This paper offers a new approach how to evaluate 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 researches where social media activity revenue evaluation methods are discussed. Marketing specialists can use this paper as an example how to evaluate return of social media activities.

Introduction

Social media network popularity is increasing worldwide. In the first quarter of 2008 Facebook was used by approximately 100 million users, but in 2014 fourth quarter Facebook was already used by 1393 million people (Statista, 2014). There are now reported to be 1.5 billion social media users globally. Also at least 70 percent of companies based in United States of America are using some form of social media (Michael Chul et al., 2012, pp. 1-5). Social media networks are becoming more important for every companies marketing strategy. Therefore, it is necessary to pay more attention to social media return analysis.

Consumer purchase decision process has been analysed from many different marketing aspects. From cultural aspect (Chaudhry, et al., 2015, pp. 197-202) from psychological aspect (Samson & Voyer, 2014, pp. 21-33) and others. However there have not been any research papers written on how to measure social media marketing return based on which consumer purchase decision process stage social media activity was meant to influence. Also no researches have been conducted on 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 researches about social media marketing metrics importance in different countries. No such studies have been made in Latvia so far.

In this article authors will propose, a formula and approach how to evaluate social media return depending on which consumer purchase decision process stage social media was meant to influence. To create the formula authors will use following information: 1. The purchase decision process stage model; 2. Expert opinions about social media metrics importance and usage frequency; 3. Theoretical literature analysis. With the help of this formula and approach more precise data about social media return can be collected.

Background and motivation of the Study. The main reasons why authors chose to write about this topic are: 1. 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 little researches conducted on social media marketing metrics in Latvia; 2. Companies always have limited resources and the main goal of a business is to use these resources as effective as possible (Abubakar H., 2011, pp. 45-59) That is why authors wanted to create a formula that could help companies evaluate their social media activities more effectively; 3. Social media helps businesses to connect with their customers more

effectively while spending fewer resources than by using more traditional communication tools. Because of this reason it is important that the evaluation of social media return is more precise (Kaplan & Haenlein, 2010, pp. 59-68); 4. 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 higher efficiency than other traditional communication tools. This allows social media not only to be used by large business organisations, but also small and medium enterprises can use social media to achieve their marketing goals (Kaplan & Haenlein, 2010, pp. 59-68). Hence it is important to help companies better understand how to calculate the return of social media activities in order to better understand the tool in general.

Research gap. Social media researches based on the AIDA model have been conducted for small and medium businesses (Hassan et al., 2015, pp. 262–269). But never social media strategy has been developed based on the consumer purchase decision process. Also there has not been developed a way how to evaluate the return of social media activities depending on which consumer purchase decision process stage social media activity was meant to influence. Authors believe that by development of such a formula and approach that can evaluate the return of social media activities based on the consumer purchase decision process they can help companies create social media campaigns which can achieve better results. As a result companies can get better return from their investments.

Literature review

The marketing communications medium has evolved from print media, electronic media, to social media in cyberspace. Consumers are more shopping online and rely more on the information published on social media sites than ever before. This trend shows that consumers 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 authors came across the following social media evaluation methods. One of the methods proposes to use the following framework to evaluate the return: 1. User Analysis. In this stage we must determine who are the users that will be listening to us; 2. User-Generated Content Analysis. We must listen to the audience to understand the topics that attract the attention of the customers; 3.

Engagement Analysis. We must analyse the actions taken in the social media; 4. Benchmarking. We must compare us with our main competitors (Cvijikj et al, 2013, pp. 10-12).

One of the approaches how to evaluate 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 return of social media before any purchases have been made (Donna et al., 2010, pp. 41 – 44).

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: 1. Enterprise listening platforms. They collect all the public accessible information about your topics of interest; 2. Text mining partners. This particular kind of platforms helps deciphering the meaning of social comments from different social platforms; 3. Platform API (*application programming interface*) tools. These are niche social measurement tools that provides you access to certain social media network insights; 4. Site analytics solutions. These tools provide you 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. (Shahizan Hassan et al., 2015, pp. 262–269).

Methodology of the research

Methodology approach. To achieve the aim of the paper several research methods were used: 1. Theoretical literature analysis; 2. Expert survey; 3. Grouping; 4. Statistical analysis methods. As the first research method theoretical literature analysis was chosen. With 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 most often used and 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 gave authors additional information that helped to develop social media evaluation formula.

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

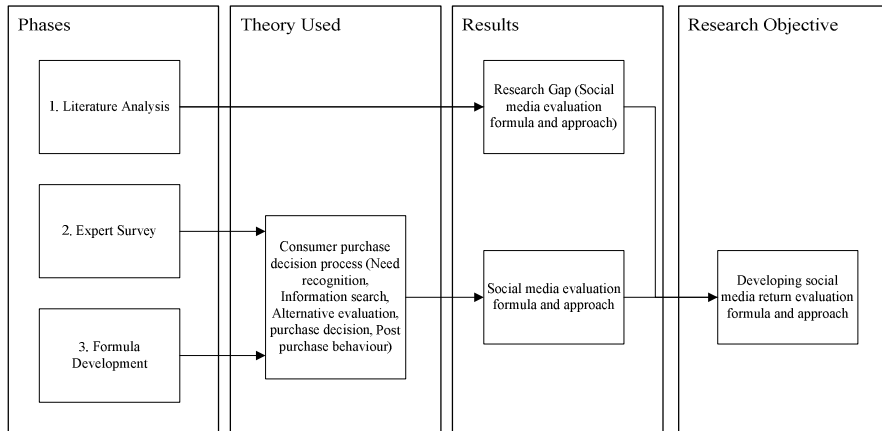
Table 1. Research framework

Research Question	Objective of the Study	Method	Result
How can we evaluate social media return depending on which consumer purchase decision process social media was determine to influence?	Develop a formula and an approach that can evaluate the return of social media depending on which consumer purchase decision process social media was determine to influence.	Theoretical literature analysis and expert surveying.	Formula and approach that can evaluate the return of social media depending on which consumer purchase decision process social media was determine to influence.

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

Based 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. The first phase includes theoretical literature analysis. This phase resulted in the identification of most often mentioned social media metrics in theoretical literature and in the identification of the research gap. In the second phase an expert survey was conducted. In the result, data about social media metric importance and usage frequency in Latvia were collected. In the third phase based on collected information in phase one and two, a formula that can evaluate the return of social media activities depending on which consumer purchase decision process stage the social media activity was meant to influence was developed.

Figure 1. Research Framework



Source: authors developed research framework based on the research

Expert survey. Data was collected from 21 marketing experts from Latvia. 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 expert survey allows gather precise data while investing less time and funds in comparison to other quantitative research methods (Kelley et al., 2003, pp. 262).

Table 2. Demographic information of the Experts

Age Range	Type of Business	Position	Experience
Between 28 - 43 years	Manufacturing, IT outsourcing, Advertising, Telecom unications, Retail, Heat engineering, Consultation	Marketing specialists Online marketing speciliasts, Marketing mangers, Marketing directors.	5-10 years

Source: own developed table based on the demographics of experts

The experts were targeted derived from various industrial sectors (e.g. manufacturing, IT, etc.). The companies that experts worked 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). Twenty one questionnaires were returned with 20 being 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 can be used to test out the proposed formula. The expert survey results are shown in table 1.

Table 3. Expert survey results

		Consumer purchase decision process									
		Need recognition		Information search		Alternative evaluation		Purchase decision		Post purchase behaviour	
		Importance	Usage frequency	Importance	Usage frequency	Importance	Usage frequency	Importance	Usage frequency	Importance	Usage frequency
Social media metrics	Bounce rate	1.1	1.07	1.2	1.12	1.2	1.07	1.3	1.07	1.4	1.07
	Time spent on site	1.35	1.15	1.3	1.15	1.4	1.15	1.3	1.15	1.1	1.15
	Unsubscribe rate	1.15	1.1	1.35	1.23	1.2	1.18	1.2	1.12	1.4	1.25
	Comments	1.37	1.25	1.4	1.33	1.4	1.34	1.4	1.34	1	0.87
	Followers	1.3	1.2	1.35	1.3	1.4	1.36	1.4	1.36	1.4	1.36
	Shares	1.3	1.28	1.4	1.36	1.4	1.36	1.4	1.34	1	0.87
	Likes	1.33	1.30	1.4	1.36	1.4	1.32	1.4	1.36	1.1	1
	Visitors	1.3	1.25	1.37	1.32	1	0.89	1	0.9	1	0.92

Source: results collected from expert surveys

Findings

Social media evaluation formula. Based on the literature analysis and the expert survey, a formula which can be used to determine social media return depending on which consumer purchase decision process stage the social media activity was meant to influence was proposed. The following information was taken into consideration while developing the formula: 1. Theoretical literature summary about most often used social media metrics; 2. Expert opinions about most frequently used and most important social media metrics; 3. The consumer purchase decision process specifics; 4. Similar research papers were analysed about social media and different consumer decision models (Shahizan Hassan et al., 2015, pp. 262–269); 5. Authors' personal experience. Based on this information following formula was proposed:

$$\text{Social media return} = (a_1 * b_1) * \frac{v_1}{L_i + L_d} + \dots + (a_n * c_n) * \frac{v_n}{L_i + L_d} \quad (1.)$$

Where, **a**- The importance of indicator, **b** - The indicators usage frequency, **v** - Total value of actions, **L_i** - Campaign development time, **L_d** - Campaign duration.

The current formula is developed so that using marketing expert opinion companies can determine return of social media activities depending on which consumer purchase decision process stage the social media activity was meant to influence.

In this formula **a** is the expert evaluation about social media metric importance depending on which consumer purchase decision process stage the social media activity was meant to influence.

With **b** expert evaluation about social media metrics usage frequency is indicated. Experts determine how often they use certain social media metric to evaluate social media activities depending on which consumer purchase decision process stage the social media activity was meant to influence.

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 from risk analysis modelling. Where risk impact level is multiplied by risk probability. Authors suggest that previously provided table 3. is used when evaluating the social media return depending on which consumer purchase decision process stage the social media activity was meant to influence.

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 and multiply the total

amount of actions with the assumed worth of an action. We indicate **Q** as the amount of social media metrics actions and with **M** the assumed worth of an action.

$$v = Q * M \tag{2.}$$

With **Li** authors indicated the necessary time to prepare the social media activity. The activity preparation time is the time that is necessary for social media activity development from the planning till the launch of the activity.

With **Ld** 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.

Conclusions

This research is both practical and theoretical:

In practice, this paper can be used as example when analysing the return of social media activities depending on consumer purchase decision process stage the online marketing activity was meant to influence. This kind of an 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 developed, that can only target one of the five consumer purchase decision process stages. By achieving marketing goals more precisely, companies can increase their revenues.

The theoretical contribution of this research is: 1. 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; 2. A new social media return evaluation approach is presented.

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