Perception Analysis of Reputation of Selected Educational Institutions Operating in Central and Eastern Europe Market

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Abstract

The aim of this study is to investigate the modern phenomenon of reputation management in the digital world of the Internet. By analyzing perception of reputation of the selected subjects - faculties (field of business economy and management) of a public universities operating in the Central and Eastern Europe Market, paper aims to explain fundamental aspects which determine perception of traditional and online reputation. For the purpose of demonstrating the variability of those aspects, perception Analysis of Reputation from the point of view typical customer - full time student has been carried out comparing the selected institution with all the domestic competitors on the market. By understanding differences between factors affecting traditional reputation and factors affecting reputation in digital world, it is possible to propose best practices which can be utilized as a tool for increasing competitiveness in the specific market of educational institutions.

Key Words: reputation, reputation management, internet, education
JEL Classification: M 31, I 23, O 33

1. Introduction

The issue of the use of Internet tools in marketing is still very young, especially when compared to other media. However, it is possible to state that any new techniques and media used within the portfolio of marketing tools may help to distinguish from the competition. The competition is immense among commercial and non-commercial entities. The times when having "only" a quality product was sufficient for prosperity on the market are long gone (Wierzbinski, 2014, Soviar, Vodak, 2012). It is increasingly difficult to reach one's target audience. Saturation of the market by advertising messages (also referred to as "ad smog" in literature) is a problem that marketing managers all over the world faces on a daily basis. Without considering resources and effort it is often the case that an advertising message is lost, or simply ceases to exist in the context of other more or less important information of various kinds. Shortening of communication paths by using information technology, specifically the Internet and its tools, appears to be an appropriate solution in marketing practices (Doucek, 2008). The Internet offers possibilities of a clear and precise targeting of a message at selected market, often as far as individuals (Janke, Packová, 2013). At the same time, communication path is significantly reduced when entities are able to communicate directly with their customers. Customers, in this case Internet users, themselves request information by which they greatly increase the acceptance rate of communicated messages. Internet, however, enables relatively simple sharing of information creating space also for entities whose motives may not always be the ethical. The issue of reputation is therefore the most relevant issue within the context of digital identities of entities which use the Internet for the purpose of marketing communications (Delina, Janke, Tkáč, 2011; Prídavok, Delina, 2013). Positive reputation or positive image is of utmost importance for universities. Image as a summary of the ideas, attitudes, opinions, and experience gained in relation to a specific university or department can be both positive and negative. Its building is a challenging, complex and long-term process and it should be part of marketing activities of universities, mainly because positive image could be an ideal source of unusual competitive advantage. This stems from value that organizations are able to create and use for long-term growth (Nimrichterová, Lieskovská 2009). The aim of our paper is to investigate the phenomenon of reputation management by analyzing perception of reputation of selected faculties of a public universities, and explain fundamental aspects which determine perception of traditional and online reputation. For the purpose of demonstrating the variability of those aspects, analysis of reputation perception from the point of view of full time student has been carried out comparing the selected institution with all the domestic competitors on the market.

2. Literature Review

2.1 The Issue of Reputation in the Context of Trust

Trust fulfils every organization in a million of different ways. No institution can function without it. Trust is a strong belief that we can rely on someone (Shore, 2005). Shaw offers alternative definition (Armstrong, 2007); he defines the concept of trust as a belief that those on whom we depend will meet our expectations of them. These expectations depend on our critical judgement of other person's responsibility to meet our needs. Tavakolifard (2012) claims that generally accepted definition of trust is still missing despite comprehensive studies of philosophers, sociologists and psychologists. It is easier to identify individual features of trust than to determine exactly what it means. We agree with the definition by Gambetta (2000) who argues that trust (or symmetrically, distrust) is a particular level of the subjective probability with which an agent assesses that another agent or group of agents will perform a particular action, both before he can monitor such action (or independently of his capacity ever to be able to monitor it) and in a context in which it affects his own action. An agent is generally an individual or a thing (entity) which affects the environment or other agents and has characteristic and its own targets which it strives to achieve. The contextuality of trust means that the trust of entity "A" towards entity "B" is always dependent on certain context "C". We'd like to point out the work of Jøsang et al. (2005) who deals with "the issue of trust" (in terms of creating trust, establishing credibility and making decisions on the basis of credibility). Jøsang et al. states that trust is an oriented relationship between two parties called the subject and the object. The term oriented is used in the sense of clear distinction of resources (subject) and goals (object) of the relationship. The authors further define two types of trust: Context-independent (reliability trust) - where trust is the subjective probability by which an individual "A" expects that another individual "B" performs a given action on which its welfare depends; and Context-dependent (decision-trust) - Trust is the extent to which one party is willing to depend on something or somebody in a given situation with a feeling of relative security, even though negative consequences are possible (Jøsang et al., 2005).

2.2 From the Brand Image to the Reputation

Companies and organizations in common have invested large amounts of financial resources and hired agencies and marketing professionals to prepare communication campaigns to support such brand image that would create an incentive for the customers to make purchases (Leboff, 2011). This argument is supported by Smaiziene and Jucevicius (2009) who claim that companies prefer to focus primarily on the image and leave the reputation behind. Grant Leboff (2011) mentions that the image is not a guarantee of positive comments and recommendations. These will only be achieved due to good reputation. In other words, the foundation of modern marketing is not the image which the organization strives to create, but the reputation which it has actually established. As regards the image and reputation, Bennet and Kottasz point out time dimension (time of creation) as the main characteristics which distinguish these two constructs. In other words, organization's image can be created in a short time. Reputation is generated in a longer time frame, and therefore cannot be changed or redirected as

quickly as the image (Smaiziene and Jucevicius, 2009). Such an approach is also supported by Jackson (2004) who argue that the time of establishment or creation is one of the main differences between the image (short time of creation) and reputation (long time of creation). Fill (2009) perceives reputation as wider set of images. He is also of the opinion that changing reputation is more time consuming and difficult while image can be influenced much faster. Therefore, it may be said that reputation and image are not synonymous, as some authors point out, yet they are closely related and interdependent elements.

2.3 Reputation in Online Environment

Walsh and Beatty (2007) argues that reputation in life and business is everything. It means that reputation is very fragile and one mistake may sometimes cause irreversible damage. This is especially true in the digital world, where radical transparency and demanding customers have the greatest power. According to Janouch (2011), if the Internet offers consumers a new way to share information about companies and brands, then it also allows the companies to control information about them. Consumers are able to obtain information on potential suppliers and products, but they can also create new content on the Internet which may affect the perception of other consumers and stakeholders of the respective organization. Negative comments on the Internet can quickly and seriously damage the image and reputation of the brand (Siano et al. 2011). eWOM (electronic word of mouth) is an important part of online reputation. According to Henning-Thurau (2004), this form of communication may be defined as any positive or negative statement made by potential, actual or former customers about a product or organization via the Internet. Jun Loayza (2013) presents basic principles of online reputation management which he divides into various segments such as Quick Fix, Long-Lasting, Content Driven and Relationship Driven.

2.4 Online Reputation Management

The concept of online reputation management in our country (Slovak Republic) is relatively unknown, despite the fact that activities involved in building and protecting brand's image and reputation should be the core interest of any entity. Online reputation management (ORM in short) can be defined as a set of tools and measures implemented for the purpose of active management of virtual reputation of the entity in the course of time. The Internet is an independent world with its own rules (Saruc et al., 2013). Information spread very rapidly and if the entity does not pay attention to communication with their clients or underestimates complaints, it may have serious problems. Reputation management in the Internet environment is often referred to as Search Engine Reputation Management or SERM, and includes several major activities (Sasko, 2014):

- online monitoring of Internet users,
- communication with the public and clients,
- evaluation of results,
- crisis reputation management.

The increasing number of Internet users and the related increase in users of social networks, blogs and websites where the content is generated by the users themselves now justifies the growing importance of Internet monitoring. Entities can for this purpose use a variety of tools that continuously index new pages on the Internet and compare them with the monitored phrases such as product name, company, competitors or any other keyword (Sasko, 2014).

3. Methodology

3.1 Research Questions

As indicated in introduction, the aim of our paper is to investigate the phenomenon of reputation management by analyzing perception of reputation of selected faculties of a public universities, and explain fundamental aspects which determine perception of traditional and online reputation. From the point of view of main purpose of the analysis, We would like to highlight the complexity of reputation investigation within real and digital world as well as various determinants of positive (and negative) reputation. Through careful examination of the research object in both environments comparison of selected object with its potential competitors within the Slovak market of educational institutions was carried out to ensure greater informative value. Partial objective was to specify the so-called "best practices" tools kits that can help increase market competitiveness.

3.2 Research Object

A selected faculty of a public university operating on the Central and Easter Europe market of educational institutions (Faculty of Management, University of Prešov) was chosen as object of the research. The faculty presents itself in the real as well as digital world. Reputation is investigated through its real customers - fulltime students of bachelor's study programme.

3.3 Research Methodology and Data Sources

From the point of view of methods and procedures the analysis was divided into two parts: the first part included analysis of the factors affecting the reputation within the „real" world carried out using an extensive questionnaire survey. In order to determine the perceived reputation of the selected faculty as well as its competitors, students of one class (approx 150) of the selected faculty were asked to complete the questionnaire. These students represent model customers choosing from a range of educational institutions particularly on the selected market. In the next step an extensive sentiment analysis was carried out according to the methodology call Sentiment analysis or Opinion Mining. Sentiment analysis may be defined as an quantification of the subjective content expressed in the text form to determine the position of a commentator or scorer in respect of a given subject. It is one of the oldest and frequently used methods for measuring reputation. In general, it can be said that sentiment analysis aims to determine the attitude of the speaker/ writer towards the particular topic or the overall conceptual polarity of the document. The attitude may cover author's judgment or assessment of a

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particular person, emotional state or the intended emotional communication (this is the emotional effect that the author wishes to impose over the recipient) (Liu, 2012). It can be used in wide range of areas like services, film industry, consumer goods, measurement of the impact of on-line ratings and reviews, social media monitoring, reviews of products, services or brands, development forecast of stock prices based on on-line reviews, ratings, identification of cyberbullying, etc. Its priority tasks include identification of subjectivity, orientation, power of the sentiment carrier, classification of emotions, sarcasm detection or various comparisons (Koncz, 2013). The sequence of the measurement process begins by defining the entities in the monitored segment and its competitors in the industry. The analysis of the sentiment always takes into account first 10 results from the search engine. To limit the distortion of the results from the search engine caused by personalize search activity, influence of cookies and other factors the process uses "proxy server" which can be, for example, anonymouse.org or any other similar site (Rohaľ and Sasko, 2011). A search phrase should always be a well-known and well established name of the research subject. One of the main factors in the process is the sentiment of the results displayed after typing key words to the search engine. Sentiment can be loosely defined as the nature of the result found after entering keywords. The results may show positive, neutral, and negative feedback (see Table no. 1). These sentiments, in order words polarity direction of the text, as well as the position at which the result is displayed will give an idea about the research subject, thus ultimately determining its online reputation (Pollák, 2015). The process records the evaluation of the first 10 results in Google search. After summing up the sentiment points we reach the final amount. That amount is then a starting factor in assessing the success or failure of companies in the particular segment.

The following table (Table. 1) shows the values assigned during the sentiment analysis:

Table 1: Sentiment Analysis, Source: Rohaľ and Sasko, 2011

| Sentiment/ Position of the Google search result	1	2	3	4	5	6	7	8	9	10
Positive sentiment	20	19	18	17	16	15	14	13	12	11
Website owned by an entity	10	9	8	7	6	5	4	3	2	1
Neutral sentiment	2	2	2	2	2	2	2	2	2	2
Negative sentiment	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11

4. Results and Discussion

4.1 Reputation in the Real World vs Online Reputation

Analysis of the real world reputation of twenty selected faculties perceived by students then enabled to generate ranking and identify customer perception of these entities. Factors that influence students' perception of the real world reputation were identified as a part of the analysis. We use customary abbreviations for faculties identification as tested in the analysis due to better clarity and authenticity.

Real world reputation of the Faculty of Management of the University of Prešov is marked as PU:FM. The following ranking of subjects was compiled based on the perceived reputation measured on the Likert scale 1-5, then sorted according to the arithmetic average:

Figure 1: Ranking of Faculties Based on Analysis within Real World; Source: Our Data
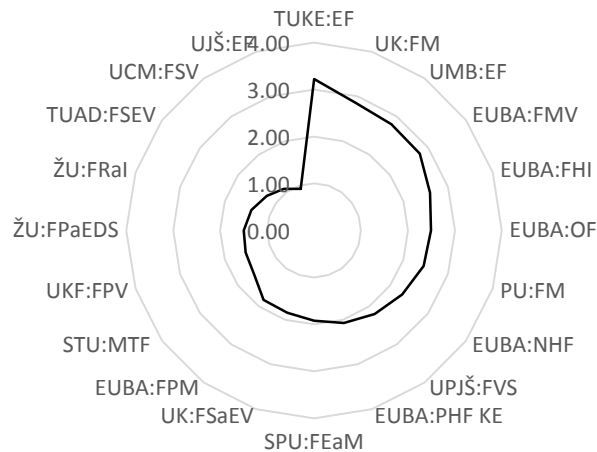
By sentiment analysis, 20 selected faculties were tested in order to detect their online reputation. The chart presents summarized ranking and scores gained by individual faculties on the basis of sentiment analysis.

Figure 2: Ranking of Faculties Based on Sentiment Analysis; Source: Our Data
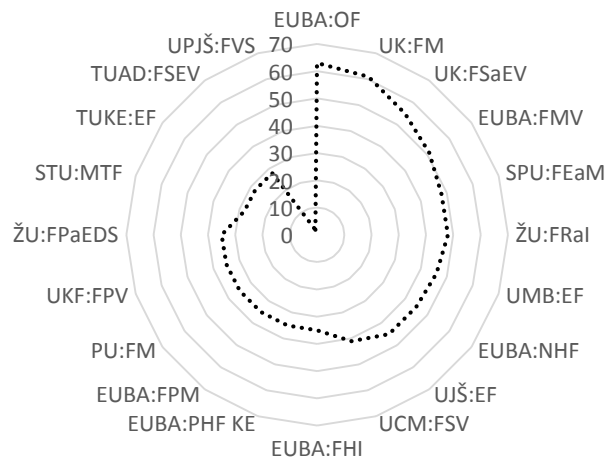

The analysis revealed that most of the search results / virtual presences were neutral, so a strongly positive or strongly negative references in top search engines results could therefore mean the difference between the first and the last place. In the case of subjects which ranked first in the evaluation of selected faculties of public universities - Faculty of Commerce of University of Economics in Bratislava (in Figure No.2 as EUBA:OF) - the following was considered: Positive sentiment of the third search result was a link to a website on universities, which included a brief description of the Faculty in the sense

that its mission is in line with its status to provide quality economic education. Positive sentiment ranked seventh, azet.sk catalogue, also described Faculty of Commerce of University of Economics in Bratislava as an institution that provides quality economic education and trains highly qualified professionals. In contrast, a faculty which ranked last in our rankings, Faculty of Public Administration at Pavlov Josef Safarik University in Kosice (in Figure No.2 as UPJŠ:FVS), gained only 2 plus points in the overall sentiment analysis due to strongly negative sentiment of the sixth and seventh search results. Two negative references affected this unfavorable ranking in the analysis of sentiment. One of them was found on the www.birdz.sk portal where someone stated that the Faculty is "nothing much". The second was a mention at www.pluska.sk website where the key decisive factor was a sentence with a significantly negative impact on sentiment, specifically the claim that the Faculty of Public Administration of the University of Pavlov Josef Safarik in Kosice "produces" the highest number of unemployed. Nature of search results and sentiment of words used in a given reference have a significant impact on the overall perceived image of an institution.

Based on the analysis we can conclude that digital and real world reputation is determined by various factors. Comparison of reputation perception in the real and digital world is shown in a transparent manner using a spider chart. The comparison is based on values differing in the results of sentiment analysis for digital world and the replies of the respondents in the questionnaire survey in the real world. When analyzing the sentiment, scale was designed to compile the chart based on scores, while arithmetic means of the scores of individual responses was used to create ranking of universities according to opinions of students. The following chart is a visual graphic display of data obtained from the real and the digital world. It applies here that the further the score is from the center of the chart the more positive it is for a given educational and its reputation thus better. For better interpretation of the context arithmetic means of subjects within the real world were magnified tenfold in order to better illustrate varied perception of reputations within various environments using two different measurement methodologies.

Figure 3: Comparison of the Results of Both Analyses, Source: Our Data
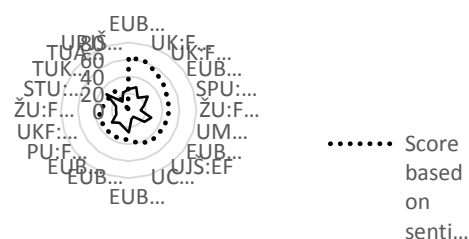
(Legend for Fig. 1-3: TUKE:EF- Faculty of Economics - TU Košice/ UK:FM- Faculty of Management, Comenius University in Bratislava / UMB:EF- Faculty of Economics of Matej Bel University/ EUBA:FMV- Faculty of International Relations, University of Economics in Bratislava/ EUBA:FHI- Faculty of Economic Informatics, University of Economics in Bratislava/ EUBA:OF- Faculty of Commerce, University of Economics in Bratislava/ PU:FM- Faculty of Management, University of Presov/ EUBA:NHF- Faculty of National Economy, University of Economics in Bratislava/ UPJŠ:FVS- Faculty of Public Administration, Pavol Jozef Šafárik University in Košice/ EUBA:PHF KE- Faculty of Business Economics of the University of Economics in Bratislava with seat in Košice/ SPU:FEaM- Faculty of Economics and Management, Slovak University of Agriculture in Nitra/ UK:FSaEV- Faculty of Social and Economic Sciences, Comenius University in Bratislava/ EUBA:FPM- Faculty of Business Management, University of Economics in Bratislava/ STU:MTF- Faculty of Material Science and Technology in Trnava, Slovak University of Technology in Bratislava/ UKF:FPV- Faculty of Natural Sciences, Constantine the Philosopher University in Nitra/ ŽU:FPaEDS- Faculty of Operation and Economics of Transport and Communications, University of Zilina/ ŽU:FRaI- Faculty of Management Science and Informatics, University of Zilina/ TUAD:FSEV- Faculty of social economics relationship, Alexander Dubček University of Trenčín/ UCM:FSV- Faculty of Social Sciences, University of St. Cyril and Methodius in Trnava/ UJŠ:EF- Faculty of Economics of J. Selye University/)

To provide clearer empirical results between two types of reputation, individual rankings of faculties were tested by Kendall coefficient (τ), which measures the strength of dependence between two serial variables. The calculated value of τ was less than tabular critical value, so we have not rejected the hypothesis of independence on the significance level $\alpha = 0.01$. We can conclude that there is no statistically significant dependence between reputation in the virtual environment and the real world.

5. Conclusions and Recommendations

We agree with the author Juraj Sasko (2014) who states, the active online reputation management can greatly facilitate active communication with the public, help in acquiring and evaluating feedback or speed up implementation of measures related to a crisis marketing communication. However, while there is no statistically significant dependence between reputation in the virtual environment and the real world, is important to understand both environments. Based on our analysis elements that are considered opinion-forming within the real world need to be summed up here. Quality of the educational process, innovativeness, methods and tools used during educational process, expertise and relevance of provided knowledge and its subsequent rate of utilization in practice can be considered fundamentals for the creation of positive reputation in the real world. These factors are ultimately reflected in the

perception of students as a single cumulative value - perceived quality. In contrast, in virtual environment the issue of building positive reputation acquires much more dynamic character. Building positive image of an entity and long-term purposeful effort to create a positive reputation can be devastated in an instant, for example by spreading false, fraudulent or intentionally harmful messages. The whole issue of building reputation is thus very fragile. A simple mention with a slight negative feeling or tone can very simply and easily damage company's name, its brand, the level of products and services it provides. Factors affecting reputation, its orientation, development and level on the Internet are various references in web pages presented by search engines, their nature, and strength of sentiment relating to a specific entity. Entities gaining top scores in our ranking have a competitive advantage over other rated entities in terms of Internet reputation. Apart from strength of sentiments of individual search results the order in which individual pages were shown was decisive here. As with faculties ranked near the top, the key factors, such as tradition formed over the years on the Slovak market, which evokes a kind of stability educational institution, bore positive sentiment. Highlighting the quality of the educational process, generally known achievements of an educational institution, innovative methods and tools used in education and also expertise and excellent employment rate of graduates of a faculty and their chances in the labor market were also very positive factors. Unfortunately, not all faculties were able to sufficiently inform about this achievement in a way which is desired in the digital world (from positive publicity in the mainstream media after positive references on Internet forums). We should also take into account rating agencies that can significantly enhance the reputation of an entity towards a positive, desirable development, i.e. to the most positive state possible, by rating a subject with stars and by various ranking on their websites. From the point of view of application of successful practices institutions should most of all try to provide relevant information in the clearest way possible on their web sites, ensure the quality, attractiveness and appeal of their own web sites. Their important aim, in their own interest, should be a purposeful effort to limit negative publicity and, on the other hand, strengthen and work on positive publicity. This can be achieved by active Internet communication policy in the form of spreading positive information on major Internet portals, such as electronic versions of major Slovak dailies or through virtual social networks. The best way to eliminate negative or neutral publicity in the first ten search engine results is a literal displacement of negative publicity and perceptions of an entity by actively working on a coherent marketing communications policy on the Internet. Last but not least, we can conclude, that reputation is perception and reality reflecting the total sets of components of the most complex asset of an organization. Especially in the virtual world of internet, knowledge and understanding of this essential components/ factors like sentiment of first 10 result in Google is one of the very first steps to standardization and formation of a systematically exhaustive exploration of the complex mathematical model. Anyhow, since presented findings identified by the analysis represent the very first step to complex approaches of measuring on-

line reputation, they can be easily utilized on almost any market for the purpose of basic increasing of competitiveness of a wide specter of entities from public or business sector. Patterns and variables affecting virtual reputation of these entities are relatively invariable across the global Internet market.

Acknowledgement

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