Marketing on Social Networks: Content Analysis of Facebook Profiles of Selected Czech E-shops

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Abstract

Purpose of the article: The research focused on the identification of types and frequencies of posts added by e-shops and the reactions of fans to the posts. Three e-shops were analysed: Alza.cz, Ccz.cz and Mironet.cz. Several categories were selected as qualitative units of analysis of communication between e-shops and fans, the frequencies of all the selected categories were measured and correlations between selected variables were calculated.

Methodology/methods: The main research method was quantitative content analysis, which allows the gathering of large numbers of qualitative data and transforming them into data of quantitative nature that can be the subject of further statistical analysis. In case of interesting quantitative findings, a qualitative explanation was used. Both communication from e-shops to fans and communication from fans to e-shops (and among fans) in the years 2011–2015 were analysed.

Scientific aim: The objective of the research presented in this article is based on content analysis to evaluate the level of the Facebook communication of selected Czech e-shops with consumer electronics within 2011–2015 using a quantitative content analysis method.

Findings: The results show that the posting frequency of all the analysed e-shops is between 1.5–4 days. The e-shops vary in the most frequent types of posts. Posts that elicited the highest numbers of reactions were characteristic with their viral nature. A strong, statistically significant correlation between the number of fans of the fan page and the frequency of their reactions to the posts was found.

Conclusions: All of the analysed e-shops should increase the frequency of contact with their fans through more frequent posting and modification in the content of the posts. Based on findings, the several suggestions for effective and successful managing the Facebook activities are served.

Keywords: content analysis, e-commerce, Facebook, fan engagement, marketing communication, social networks

JEL Classification: M15, M21
Introduction

The first part of this article is concerned with the specifics of the internet marketing in general and the social media marketing. In the second part, a quantitative content analysis of Facebook websites of three selected Czech e-shops is performed and discussed.

Internet marketing, with the increase in Internet accessibility, has become one of the most important means of marketing to companies. According to Kariček and Král (2011), the most notable positive qualities of online marketing are following: the possibility of precise consumer targeting, personalization, interactivity, multimedia content, simple efficiency measurement, and relatively low costs. Nowadays, one of the most effective forms of internet marketing is considered to be marketing and business activities on social media. According to Qualman (2012), only 14% respondents believe in classical forms of advertisement, whereas 78% of consumers trust peer recommendations and even social media has overtaken pornography as the first activity on the web. Qualman (2012) also confirms that only 18% traditional TV campaigns generate positive Return on Investment. Social media are networks of interconnected individuals that share information. Social Media can be divided into personal (sharing of personal information) and professional (sharing of professional information and creating professional contacts) social media (Vyskalová, 2012). Cappellari and Tatsiramos (2015) have proven the direct correlation between the quality social networks, job finding and job quality. This network increases the job finding rate and the wages for high-skilled workers. The social media networks are characterized by the following features (Bednář, 2011; Boyd, Ellison, 2007): the users can create public or semi-public profiles; the users connect with other users, communicate and share information, comments, etc.; most of the content is created by the users themselves. According to Alarcón-Del-Amo et al. (2015, p. 2), “Social Media Networks provide people with bodies that are combinations of embodied and technologically mediated action. These tools create multiple visibility formats within the infospheres of social media”. Fundamental business success is precisely created and implemented strategy on social media that create the potential for direct and effective two-way communication, allowing marketers to be in constant touch with their customers (Svatošová, 2012).

1. Specifics of social media marketing presentation and communication

Lehoff (2011) states that through the increase of popularity of social media all traditional rules of marketing communication were changed. While in the past years an organization or an individual needed an immense PR or media company in order to communicate a certain message, now the message can be spread to all social network users connected to the profile of an organization or an individual. In order to be able to communicate directly with potential customers, a company needs to create its profile on a selected social network, and create a profile page with e.g. the company and product or service details. Research shows that “fans” of various brands and organizations are more prone to buy a product or service, or suggest it to their acquaintances, and they view the brand itself more positively (Kariček, Král, 2011). Alberghini, Cricelli and Grimaldi (2014) in their case study proved that social media increases individual participation, customization or promote the grow of network relationships. They also highlight the social media such as the key factor of knowledge management.

On the other hand Bruhn, Schoenmueller and Schäfer (2012) resulted that both traditional communications and social media communications have a significant impact on brand equity: “while traditional media has a stronger impact on brand awareness, social media communications strongly influence brand image”. Kaplan and Haenlein (2010) declares that concept of social media is top of the agenda for many business executives today. Decision makers try to identify ways, in which firms can make profitable use of social media applications. On the other hand, Zhao et al. (2013) found out that seven popular social media tools were available only on around 50% sites for online interaction, communication, networking, and collaboration and less than 50% of the consumers were actively engaged in using social media tools for posting ideas and comments. Calefato, Lanubille and Novielli (2015) conclude in their research that online social networking platforms provide tools for companies to communicate benevolence to potential customer: the daily management of a social media profile is perceived as a cue of openness. The research (Ho, Vogel, 2014, p. 1) focused on using Facebook shows that “the web’s relative advantages consisting of trust, convenience and information quality obtained from online resellers’ website can facilitate an interactive and user-centred environment for e-commerce. The relative advantages of the web largely
depend on peers and engagement with sellers derived from social networking sites”. Lee, Cha and Cho (2013, p. 1) illustrated that “the perceived value and customer loyalty are affected the most by online service recovery’s “responsiveness” factor in the social commerce website”. Various authors summarize advantages and opportunities of marketing in social media (see Treadaway, Smith, 2010; Janouch, 2010; Kulhánková, Čamek, 2010; Šiš, 2010; Bednár, 2011; Přikrylová, Jahodová, 2010; Frey, 2011), that allow faster innovations of products and services, reduction of marketing costs, and in general more effective marketing campaigns:

- Hyper-targeting: Ability to customize advertising by using automatic filters following specific criteria (region, gender, education, occupation, sexual preferences, hobbies, etc.). Companies are able to use hyper-targeting thanks to information shared by potential customers on their profiles.

- Viral (pass-along, friend-tell-a-friend) marketing: When a marketing message communicated by the source of the message is highly interesting, it has a chance to be spontaneously spread among intended recipients of the message. The advantages of viral marketing are low costs of the marketing campaign, and higher authenticity among consumers.

- Creating databases of potential customers: the company can gather information about its “fans” for customized (hyper-targeted) marketing campaigns.

- Dealing with customer complaints and commendations in a quick and effective way.

- Feedback: the company quickly receives feedback on its products and services.

- A quick evaluation of the effectiveness of the marketing campaigns.

- Staying in touch with the customers, creating groups of loyal customers.

2. E-commerce and social media: Number of users in Czech Republic

According to Válková (2013), we can see that Facebook relatively has the strongest position in the Czech Republic (over 3 million thousands). According to Michl (2013) the above mentioned number of users is exaggerated. In younger age categories, there would be a higher number of Facebook users than people from the same age categories living in the Czech Republic. This discrepancy can be explained by the existence of a high number of fake accounts and users with multiple Facebook accounts. However, the strongest position of Facebook in Czech Republic is, even with this correction, hardly disputable. Before we conducted our primary research – the content analysis of Facebook presentations of selected e-shops – we analysed the e-shop market itself. There are about 30,000 e-shops on the Czech e-commerce market (Economia, 2012), from which around 2,000 sell primarily consumer electronics. According to APEK (Asociace pro Elektronickou Komerci) (Effetix.com, 2014) approximately 47% of all customers on e-commerce websites buy computers and related accessories, and 36% buy mobiles and related equipment. From the overall e-shop customer turnout (Economia, 2012), 1.6% of customers came from social media networks in 2013 (0.6% in 2010, which means a 37.5% increase within 3 years). Roy, Maxwell and Carson (2014) created a survey focused on using the social media by small and medium-sized enterprises. The results show that SMEs in Arkansas use social media, mainly Facebook, to reach their current customers and also to reach potential customers as well as to implement promotional programs for customers. Stelzner (2012) conducted a survey focused on SMEs as well, in which concluded social media helps SMEs to support their business, especially to generate more awareness in terms of business exposure, increasing traffic and providing organization insight. Another research (Fernandes, Belo, Castela, 2015) shows that companies believed social networks favour business performance, only half use them effectively.

3. Research Objectives and Methods

In the following analysis of marketing presentation and communication on social media networks, we will focus only on Facebook. The research presented in this paper was prepared and conducted with the aim to analyse the Facebook presentation of Czech e-shops with consumer electronics, and their communication with fans. The data for years 2011–2013 were collected by Nikola Vichtová (2014) within her Bachelor thesis, data for 2014–2015 were collected by own processing. Our objective was to answer the following research questions:

1. What types of posts are added to Facebooks profiles by selected e-shops?
2. What types of posts are added most frequently?
3. Are there any significant changes in the communication of the selected companies on Facebook within 2011–2015?
4. How do fans on Facebook react to various posts?
5. Is there any relation between the number of respondents and the frequencies of those reactions to the posts?
6. Is there any relation between the type of post and the frequencies of the reactions of the fans?

Based on the analysis of the e-shop market, three e-shops were selected for further analysis of their communication on Facebook. The e-shops Mironet.cz, Czc.cz and Alza.cz were selected based on the number of their fans (details see Válková, 2013).

The main research method was quantitative content analysis, which allows the gathering of large numbers of qualitative data and transforming them into data of quantitative nature that can be the subject of further statistical analysis. In case of interesting quantitative findings, a qualitative explanation was used. Both communication from e-shops to fans and communication from fans to e-shops (and among fans) in the years 2011–2015 were analysed. In the first step, qualitative units of analysis were selected. The qualitative units (categories) for communication from e-shops to fans are as follows:
1. Product: information promoting products.
2. Contest: contests for fans of the page.
5. Other: not classifiable within categories 1–4

The qualitative units for communication from fans are following:
1. “Likes”.
2. Positive Comments: about products, company, communication with customers, etc.
3. Negative Comments: about products, company, communication with customers, etc.
4. Questions.
5. Comments about contests.
6. Warnings: about products and related, company, communication with customers, etc.
7. Other: not classifiable within categories 1–6.

In the second step, quantitative unit(s) for measurement of qualitative units was selected. The frequency of selected categories within 2011–2015, and the frequency and types of reactions of users were measured. On the basis of acquired data, correlations between selected variables were calculated. Microsoft Excel was used for data processing and basic statistical processing (frequency tables). Statistica was used for the computation of correlation matrices (Pearson’s, Spearman Rank-Order Correlation).

3 Research Results

3.1 Mironet

Mironet was registered on Facebook in 2009, and have over 6.700 followers in 2016. The main page of the e-shop has clearly visible links to Social Media networks (Facebook, Twitter, Google+, YouTube, Instagram, Pinterest). The users are allowed to post comments about products. The development of the frequency of communication from Mironet to fans on its Facebook profile is summarized in Table 1.

The overall frequency of posts increased steadily from 75 posts in 2011 to 140 posts in 2015. The frequency of all categories, except in the Contest category, increased within the selected time period. The reason for the decrease in the frequency of contests might be poorly set rules and common complaints on contests from the fans (see below). Category Product is clearly the most frequent type of post (228), followed by the categories Contest (105) and News and Information (148). The typical format of posts in the Product category was links to Mironet web pages and the e-shop. On average, Mironet added approximately 1 post every 2.5 days in 2015.

The frequency of likes and comments was increased within 2001–2015. There are no significant differences in the frequency of likes and comments. The highest frequency of comments and likes is

<table>
<thead>
<tr>
<th>Type of posting</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>29</td>
<td>41</td>
<td>45</td>
<td>52</td>
<td>61</td>
<td>228</td>
</tr>
<tr>
<td>Contest</td>
<td>30</td>
<td>24</td>
<td>14</td>
<td>16</td>
<td>21</td>
<td>105</td>
</tr>
<tr>
<td>Benefits</td>
<td>3</td>
<td>8</td>
<td>13</td>
<td>12</td>
<td>16</td>
<td>52</td>
</tr>
<tr>
<td>News and information</td>
<td>12</td>
<td>18</td>
<td>36</td>
<td>40</td>
<td>42</td>
<td>148</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>92</td>
<td>111</td>
<td>122</td>
<td>140</td>
<td>540</td>
</tr>
</tbody>
</table>

Source: Vichtová, 2014 (own processing).
in categories Contest, News and Information, and Product. What interesting fact is the relatively high frequency of reactions in the categories Contest, News and Other in within 2013–2015. As mentioned above, in the case of Contest this discrepancy is caused first, by problems with rules and the evaluation of one contest, and contest for mobile phones that became highly popular. In the case of category Other, posting about floods, in which Mironet offered help to the flood victims, became highly popular and widely shared. Introduction of news and information were also popular. The average number of reactions (likes and comments) to one Mironet post was 14 (within years 2011–2015). Now we will turn our attention from posts added by Mironet and the reactions of fans to the posts, towards posts added by users and replies by Mironet. The frequency of posts in 2011–2015 added by fans is summarized in Table 3. The most frequent category of posts added by fans was Questions.

### Table 2. Reactions of users to Mironet posts.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>60</td>
<td>87</td>
<td>49</td>
<td>59</td>
<td>90</td>
<td>55</td>
</tr>
<tr>
<td>Contest</td>
<td>124</td>
<td>127</td>
<td>45</td>
<td>140</td>
<td>385</td>
<td>464</td>
</tr>
<tr>
<td>Benefits</td>
<td>6</td>
<td>14</td>
<td>15</td>
<td>15</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>News</td>
<td>47</td>
<td>13</td>
<td>68</td>
<td>104</td>
<td>284</td>
<td>68</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>44</td>
<td>1</td>
</tr>
</tbody>
</table>

**Source:** (Vichtová, 2014) and own processing.

### Table 3. Posts added by users.

<table>
<thead>
<tr>
<th>Type of posting</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Negative</td>
<td>9</td>
<td>8</td>
<td>16</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Questions</td>
<td>60</td>
<td>42</td>
<td>49</td>
<td>51</td>
<td>54</td>
</tr>
<tr>
<td>Comments about contests</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Warnings</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>61</td>
<td>83</td>
<td>79</td>
<td>81</td>
</tr>
<tr>
<td>Mironet reply rate</td>
<td>85%</td>
<td>67%</td>
<td>80%</td>
<td>81%</td>
<td>82%</td>
</tr>
</tbody>
</table>

**Source:** Vichtová, 2014 (own processing).

3.2 Czc

E-commerce company Czc.cz registered on Facebook in year 2010. In 2013 it had over 19,000 followers, and today their numbers are rapidly increasing (over 75,600 followers in 2016). Their e-shop web page connected to four Social Media networks (Facebook, Twitter, Google+, Youtube), but the positioning of links to social networks on the main page is not chosen well till 2013. The links are positioned at the end of the page, so the potential followers have to scroll all the way to the bottom of the page to see them (see czc.cz). Now, in 2016 the website was redesigned and links to social networks are clearly visible. Table 4 contains the frequencies of categories posted within 2011–2015.

There are no substantial differences in the frequency of overall posts in the analysed period 2011–2015. With a new marketing orientation of the company on social networks, steadily increase of posts in all categories was noticed. The most common categories of posts are News and Information (254) and Product (231). On average, Czc added approximately 1 post every 1.5 days in 2015.

Within 2011–2012 the frequency of comments and likes is stable. In 2013 it decreases to 848 likes and 646 comments, which can be explained by a change in communicated content in 2013. Within 2014–2015, the increase in likes and comments with a change of marketing communication of the company was
noticed. Czc used to add various jokes (viral content) and electronic appliance reviews (category Other) on its Facebook profile that were highly popular among the fans. In 2013 Czc stopped adding this type of content. Within 2014–2015, the company started using interesting and funny contents again.

The frequency of posts by fans in 2011–2015 increased steadily. Approximately 71% of all posts belong to the category Questions (questions about products, questions about claim for replacement procedure, etc.). The number of negative comments is relatively higher within 2012 and 2015 compared to the positive comments, most of the negative comments dissuade potential customers from using the services of the Czc e-shop. In 2011, there were a significantly higher number of comments related to contests, which was caused by a misinterpretation of one particular contest by fans of Czc – the fans incorrectly participated in the contest by adding comments to the Facebook profile page. The reply rate of Czc to user comments increased in 2013 from 53% to 85%.

### Table 4. Czc posting frequency in 2011–2015.

<table>
<thead>
<tr>
<th>Type of posting</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>23</td>
<td>21</td>
<td>31</td>
<td>51</td>
<td>105</td>
<td>231</td>
</tr>
<tr>
<td>Contest</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>25</td>
<td>55</td>
</tr>
<tr>
<td>Benefits</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>19</td>
<td>45</td>
</tr>
<tr>
<td>News and information</td>
<td>37</td>
<td>35</td>
<td>34</td>
<td>59</td>
<td>89</td>
<td>254</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>12</td>
<td>0</td>
<td>15</td>
<td>26</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>79</td>
<td>80</td>
<td>145</td>
<td>246</td>
<td>647</td>
</tr>
</tbody>
</table>

**Source:** (Vichtová, 2014) and own processing.

### Table 5. Reactions of users to Czc posts.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Product</td>
<td>265</td>
<td>167</td>
<td>242</td>
<td>302</td>
<td>380</td>
<td>335</td>
<td>289</td>
<td>315</td>
<td>301</td>
<td>312</td>
<td>1447</td>
<td>1431</td>
</tr>
<tr>
<td>2012</td>
<td>Contest</td>
<td>71</td>
<td>115</td>
<td>111</td>
<td>70</td>
<td>57</td>
<td>38</td>
<td>85</td>
<td>74</td>
<td>89</td>
<td>65</td>
<td>413</td>
<td>362</td>
</tr>
<tr>
<td>2013</td>
<td>Benefits</td>
<td>45</td>
<td>56</td>
<td>44</td>
<td>24</td>
<td>51</td>
<td>60</td>
<td>61</td>
<td>49</td>
<td>69</td>
<td>37</td>
<td>270</td>
<td>226</td>
</tr>
<tr>
<td>2014</td>
<td>News</td>
<td>532</td>
<td>540</td>
<td>573</td>
<td>359</td>
<td>360</td>
<td>213</td>
<td>421</td>
<td>369</td>
<td>535</td>
<td>398</td>
<td>2421</td>
<td>1879</td>
</tr>
<tr>
<td>2015</td>
<td>Other</td>
<td>266</td>
<td>54</td>
<td>226</td>
<td>83</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>16</td>
<td>495</td>
<td>162</td>
</tr>
<tr>
<td>2011–2015</td>
<td>Total</td>
<td>1179</td>
<td>932</td>
<td>1196</td>
<td>838</td>
<td>848</td>
<td>646</td>
<td>857</td>
<td>816</td>
<td>996</td>
<td>828</td>
<td>5076</td>
<td>4060</td>
</tr>
</tbody>
</table>

**Source:** (Vichtová, 2014) and own processing.

### Table 6. Posts added by users.

<table>
<thead>
<tr>
<th>Type of posting</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>6</td>
<td>5</td>
<td>9</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>4</td>
<td>33</td>
<td>62</td>
<td>50</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Questions</td>
<td>79</td>
<td>148</td>
<td>227</td>
<td>365</td>
<td>401</td>
<td></td>
</tr>
<tr>
<td>Comments about contests</td>
<td>50</td>
<td>4</td>
<td>3</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Warnings</td>
<td>7</td>
<td>16</td>
<td>17</td>
<td>15</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>38</td>
<td>24</td>
<td>20</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>244</td>
<td>342</td>
<td>470</td>
<td>512</td>
<td></td>
</tr>
<tr>
<td>Mironet reply rate</td>
<td>52%</td>
<td>53%</td>
<td>81%</td>
<td>81%</td>
<td>85%</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** (Vichtová, 2014) and own processing.

3.3 Alza

Alza created its Facebook profile in 2009. In 2016, there are over 100.250 followers of Alza. The e-shop is connected to social media networks (Facebook,
Google+). The links to social media networks are positioned at the end of the main page and are not easy to find and recognize. Alza offers the possibility to register to its e-shop via its Facebook page.

The total frequency of posts by Alza reached its peak in 2012 (96), in 2013 it decreased to 60 posts (cca 1 post every 6 days). In 2015, it increased again (88), i.e. 1 post every 4 days. The most common categories of posts are Product and News and Information. Products are usually promoted with links to the e-shop alongside pictures and videos. News and information are mostly concerned with new branches and sales locations, and profiles of employees of the company. In 2013 the frequency of Contests increased sharply (21 compared to 6 in 2011–2012). In 2014, the contents decreased to 15; nevertheless, in 2015 this category was increasing to 19.

The highest frequency of reactions by users falls within categories Product and News and Information. In 2013, the most commented on post was an amusing picture (collage, category Other), and posts related to Alza (history of company, pictures of branches, products). The average number of reactions (likes and comments) to one Alza post was 108.3 (within the years 2011–2015). Alza does not allow users to post on its Facebook profile, thus the frequency of user posts cannot be calculated.

### 3.4 Comparison of analysed e-shops

The highest numbers of posts during the analysed time period were added by Czc, while the lowest number of posts was added by Alza. On average analysed e-shops added one post every 4.5 days. The reach of all the analysed fan sites might be higher if they posted more frequently, e.g. every day (Askanase, 2011). The most common type of post varied among the e-shops. The most common posts of Mironet were related to Product, in the case of Czc it was News and Information, in the case of Alza it was both Product and News and Information. Two main goals of communication of the e-shops to customers can be identified: promotion of products and attraction of new potential customers. The posts from category Product were often focused directly on promotion and marketing of products. News and information were often used to inform the customers about new sales places or distribution centers. Posts from categories Contests and Other were designed to elicit reactions of fans (likes and comments) and sharing of posts within people’s social network – expanding the reach of a brand. According to Wu’s (2012) methodology, in the 34th week of 2016 Alza will have 2.900 active fans (2.9% of all fans), the results of both Czc (1134; 1.5%) and Mironet (34; 0.52%) would be less satisfactory. All of the analys...
sed e-shops evince lower fan activity than the 2.23% that was reported as typical for Facebook fan sites (Wu, 2012).

4. Final Results

The total frequencies of reactions to posts by companies rose as a function of a number of respondents. We found a strong ($r=0.9998$) statistically significant (at $p<0.05$) correlation between the number of fans and the frequency of their reactions to posts. These results could be expected: the Facebook marketers should attempt to have a big active fan base that could attract other online users. We found no statistically significant (at $p<0.05$) correlation between the frequencies of posts of various types and the frequencies of reactions by fans to the posts. These findings give the information that not any post could attract their fans. It is fundamental to think over the quality of posts and its attractiveness for online users. Details about the effective Facebook marketing and management could provide Zarella and Zarella (2010), e.g. you need to be personal, have a control about a content of your fan group, right timing your post, or how to manage the fan page and fan discussions. The strongest relation between frequencies of posts of various types and frequencies of reactions is in the category Other ($r = 0.5678$; not significant at $p<0.05$), there are moderately strong negative correlations between the frequency of posts in the category Product ($r = -0.5827$; not significant at $p<0.05$) and category Contests ($r = -0.5171$; not significant at $p<0.05$). These results suggest that the viral nature of some posts in Other promotes active reactions by fans. Allen (2012) and Woodhouse (2015) prove the highest effectiveness of viral marketing with keeping the right and model rules for setting the viral marketing campaigns. We can conclude that the examined companies do not use Facebook as a marketing tool effectively. The companies do not update the news and posts regularly, the posts are not attractive for their fans and do not encourage fans in active sharing of posts and comments. Based on these findings, the several suggestions are served to support the effective and successful management and marketing on Facebook.

5. Discussion

The analysis was conducted on the basis of publicly accessed data – mainly the web pages and the Facebook pages of the selected companies. With access to non-publicly available statistics of the activity on the Facebook pages, the analysis could go deeper and thus have more applicable results. There are various metrics that, if properly used, can give deeper insight into the engagement of fans with a page’s content and how data can potentially affect website visits, purchasing and engagement with the company’s services. Wu (2012) proposes a method of measurement of the engagement of fans of fan pages. He defines several levels of engagement. Level 0 engagement is the total membership of a fan page (fan count). At this level of engagement the true value of fans can’t be utilized until they take actions to interact with the page’s content or with others Lipsman, Mudd, Rich, and Bruich, 2011). Level 1 engagement is active fans (those who posted something), statistics of active fans are available to the owner of a page. Wu states that the number of active fans can be biased by the age of the fan page – younger fan pages may not have the time needed to develop a large, active fan base. Level 2 engagement is what fraction of posts is interactive (what fraction of posts has a comment).

6. Suggestions and recommendations

The results of the primary research and theoretical background could provide following suggestions for Facebook marketers and e-shop businesses, in which the Facebook could be served as key marketing tool:

- Detach a specialist administrator (internal or external), whose main business is only based on marketing and management on Facebook and other social networking sites.
- Do a situational analysis on social media – about an existing competition on their websites and social networking, recommendations on discussion forums etc.
- Think over the main Facebook strategy and subsequent marketing tactic campaigns on Facebook, e.g. to increase the brand image, support the recommendations etc.
- Think over the main marketing tools used on Facebook, e.g. paid targeted banner ad on Facebook, the extent of paid Facebook page (how many online user you would like to address and how much you are willing to invest to Facebook marketing), etc.
- Collect your first fan group base – the visibility of your posts on Facebook is limited, you are forced to paid (approximately five dollars) for targeting higher extent of online users. You can target and segment your posts to a specific group of online users.
Think over the content of your posts, e.g. news on your e-shop, interest about daily news related to your business, open a discussion and public inquiry, posts about new products and new information from your webpages.

Think over your potential fans and online users – who they are and what they want. Primarily, it is entertainment. Firstly, you could share secondary pictures and videos that indirectly relates to your business. Secondly, discuss with your fans (the comments could see friends of their friends), inform about new and other information (actions, games, sales, links on your websites, etc.). The occasional actions could be based that could increase your fan base and create the prerequisite for spontaneous viral dissemination.

Remember your posts and contacts with your fans have to be based on regular basis.

Observe the reactions on your posts (create a statistics and regularly evaluate them), positive and negative comments, immediately react on them (provide feedback) and manage other discussions.

The highest level of Facebook marketing is targeted viral post. This requires the high level of creativity and detail knowledge about online users and online environment. You can use the services of experts and create the main strategy of viral posts.

Connect Facebook page with other social media – blogs, videoblogs, discussions, etc.

Think over the Facebook, such as one of key and strategic marketing tools, not only compulsory and secondary forms of your promotion.
Based on the suggestions, the scheme for effective and successful management and marketing activities on Facebook is provided (see Fig. 1). The scheme starts with situational analysis, set-up Facebook business page that are interconnected with other marketing activities of the company, afterwards, the Facebook strategy and long-term and short-term Facebook goal are determined with respecting other marketing activities and campaigns, for which the selected Facebook marketing tools are used (discussions and forums, number of “likes”, comments and messages, information and news, posts and viral posts). Finally, the Facebook activities have to be evaluated and feedback has to be provided.

Conclusion

The objective of the research is to conduct an analysis of Facebook communication of selected Czech e-shops with consumer electronics within 2011–2015 using quantitative content analysis. The research focused on the identification of types and frequencies of posts added by e-shops and the reactions of fans to the posts. Three e-shops were analysed: Alza.cz, Czc.cz and Mironet.cz. As qualitative units of analysis of e-shop to fan communication the following categories were selected: Product, Contest, Benefits, News and Information, and Other. As qualitative units of analysis of fan to e-shop communication the following categories were selected: Likes, Positive and Negative comments, Questions, Comments about Contests, Warnings and Other. Frequencies of all the selected categories were measured and correlations between the selected variables were calculated. The results show that the posting frequency of all the analysed e-shops is 1.5–4 days. The e-shops vary in the most frequent types of posts: while Mironet.cz’s posts were most frequently related to their products, Czc.cz’s posts were most frequently related to news about the company, its branches and available job positions. In the case of Alza.cz both of the above mentioned types were equally frequent. The category that elicited the most reactions from fans was the category Other. These posts were characteristic with their viral nature (funny pictures, videos, etc.). A strong statistically significant correlation between the number of fans of the fan page and the frequency of reactions to the posts was discovered. No other statistically significant correlations were found. The several shortcomings were observed; especially examined companies do not use Facebook as an effective marketing tool. The feedback, quality of posts and information are underestimated. The level of communication and caring for fan group is poor quality as well. Based on these findings, the several suggestions and recommendations for managing the Facebook activities are served. All of the analysed e-shops should increase the frequency of contact with their fans through more frequent posting. Fan activity of all the e-shops is rather low. If they want to expand the reach of their fan pages they should focus on posting viral content that is engaging and sharable.

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