Differences in framing activities between B2B and B2C contexts

Author: Gijs Lemmens
University of Twente
P.O. Box 217, 7500AE Enschede
The Netherlands

ABSTRACT: This paper is a qualitative research about framing activities on Wikipedia pages. The aim is to investigate to what extent framing occurs and what the differences are in framing activities between business-to-business- and business-to-consumer customers. It is an exploratory research with a recent developed software tool called Contropedia. The paper includes a self-developed framework, to analyze three B2C and three B2B companies. The completed framework showed that framing activities occur more frequently in a B2C- than in a B2B context.

Supervisors: Dr. Michel Ehrenhard
Ir. drs. Tijs van den Broek

Keywords
business to business, business to consumer, controversies, corporate scandals, framing, Wikipedia

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1. INTRODUCTION

1.1 Introduction of the topic

Wikipedia is a worldwide known online encyclopedia. Information can be found about topics of everyone’s interest. What makes Wikipedia unique is that everyone is able to change existing information, where they disagree with. Making these changes is allowed, as long as it adds something to the existing information. It is also possible to review the history of these changes and of the discussions that occur on this platform. This history exists of large logs which often contain thousands of revisions. In this research, this history will be used to investigate how customers of big brands try to influence the perception of others about a corporate scandal. The focus will be on possible differences between activities of customers of business-to-business (B2B) and business-to-consumer (B2C) companies.

This is an interesting topic, because it will give an insight about how customers react to a corporate scandal. For example, some changes are made by customers who are a fan of the particular brand. These customers are likely to react different to a corporate scandal than people without such a strong connection with the company. Another aspect that makes this research interesting is that a lot of research has been done about customer loyalty in a B2C context, but not much is known about this topic in a B2B context (Lam, Shankar, Erramilli, & Murthy, 2004). In this thesis I will focus on both contexts and the possible differences between both contexts.

1.2 Research question

The goal of this research will be whether framing activities on Wikipedia pages of companies will occur more frequently after a corporate scandal of this company has occurred. The research question will be as follows:

“*How do customers of B2C companies try to frame negative formulations on Wikipedia after a corporate scandal compared to customers of B2B companies?*”

First, the concept of framing has to be clear. In this paper, the definition of Fiss & Hirsch (2005, p. 30) will be used to describe framing: “The concept of framing captures the processes by which actors influence the interpretations of reality among various audiences”. So, in relation to this research, framing means that Wikipedia users are trying to change others interpretation of a corporate scandal.

With corporate scandals is meant an event that has occurred, which could possibly have an impact on the reputation of a company. A good example is the Deepwater Horizon Oil Spill of BP in 2010. This resulted in a drop in BP’s reputation and in 9 days, the share price dropped with 22% (CBS News, 2010).

More often, companies see brand communities as an important weapon for relationship marketing (Andersen, 2005). A brand community is a community with none-geographical related members that have in common that they admire a certain brand. These communities are marked by a shared moral responsibility, which, among others, implies that members of communities try to integrate and retain other members in these communities (Muniz Jr. & O’guinn 2001).

Opposed to brand communities, are the anti-brand communities. These anti-brand communities share all characteristics of brand-communities, except that they oppose specific brands (Hollenbeck & Zinkhan, 2006). Due to the existence of these brand communities and anti-brand communities, it is likely to find that users of Wikipedia try to change negative formulations of companies involved in a corporate scandal in a positive way and that users try to change positive formulations in a negative way.

In B2C, emotional and functional benefits tend to be the most important criteria of the relation, while in B2B relations the functional benefits are more important than the emotional ones (Mudambi, 2002). This means that customers in a B2C context are expected to feel a stronger commitment to brand than customers in a B2B context do and therefore, the expected findings are that the B2C customers will be more active to change negative formulations on Wikipedia than B2B customers.

1.3 Academic & practical relevance

Not much research is done yet with historical information of Wikipedia pages. Recently, the software tool Contropedia was developed to make it easier to analyze these data. This research will be one of the first steps of research in this field and hopefully it will help others to do more research about it.

Another contribution that this research adds to the existing literature is the differences between B2C and B2B customers in relation to company loyalty and commitment. There is a lot of research related to customer loyalty in the business to consumer markets, but not much is known about customer loyalty in the business to business markets. Hopefully this research will give a better insight about the B2B customers and the differences between B2B and B2C markets.

2. METHODOLOGY

To find an answer to the research question, which is stated above, an analysis will be made of the edit history of Wikipedia pages of six large companies that are related to a corporate scandal. Six companies will be sufficient to discover whether there is a difference between the B2B and B2C customer’s framing activities, since this is an exploratory research.

2.1 Company selection

Like stated above, a selection was made of six companies. All these companies have been involved in a corporate scandal and something about this scandal is said on their Wikipedia page. Three of the selected companies are B2B
companies. These companies include: PricewaterhouseCoopers, Monsanto and HSBC. These companies are from different sectors, to make sure that the results will not be sector dependents. This will strengthen the internal validity. Also three companies were selected that are active in a B2C context. These companies include: BP, McDonalds and Nestlé. Also these three companies are from different sectors. All six selected companies will be described, together with the related scandals, in more detail in the data analysis chapter.

2.2 Data Collection
For the collection of the data used in this paper, Contropedia was used. Contropedia is a software tool that makes change activities by users on Wikipedia visible through a visual interface (Borra et al., 2015). This software exists of two different views: the layer view and the dashboard view. The layer view provides the Wikipedia pages as it can be found on Wikipedia itself, but here the most controversial words are marked. How warmer the color of the marking, the more controversial the word is. It is also possible to click on a controversial word and to see which changes are made with the marked word in it. The dashboard view gives a top ranking of the most controversial words on that particular page. Per word the change frequency, the users involved and even a timeline of the changes made is given (Laniado et al., 2015). For this paper the layer view will be used, since it gives an overview of which controversial words are related to the selected scandal. The changes made with these words will be analyzed and will be divided into different categories. After the analysis is done, a framework will be filled in. This framework will be provided in the next chapter.

3. DATA ANALYSIS
In this section, six corporate scandals of six different (large) companies will be analyzed. Three of the companies to be analyzed are B2B companies and the other three are B2C. This chapter will start with the creation of a framework for the analysis of the changes that are made after a corporate scandal has occurred. This framework will help to compare the different scandals. After this framework has been created, the Wikipedia pages of the companies will be analyzed. On this pages are often separate paragraphs related to the scandals. These paragraphs contain controversial words, which will be detected by Contropedia. This software gives an overview of how Wikipedia users have changed a Wikipedia page with these controversial words involved. After the framework have been developed, all the cases will be analyzed one by one. The results of this analysis can be found in table 2, which can be found in section 2.8.

3.1 Construction of the Framework
The aim of the framework is to divide the changes made on Wikipedia pages into different types. Wikipedia itself, has four categories different changes: Sentence change, a sentence with the selected word in it is changed; insert, the selected word is added; delete, the selected word is deleted; and element change, the selected word is differently defined (Laniado et al., 2015). These categories do not say anything about the content of the change. Also in the existing literature, no framework exist which might be useful for this paper, therefore it is necessary to develop one. Although, some categories of Wikipedia edit can be found in the existing literature. The others are based on the findings during the analyses of the cases. The framework exists of different categories. Framing, positive as well negative, will be one of these categories. The other categories will include type of changes that were discovered during the analysis of the cases and will be described in more detail below. The chosen categories will be illustrated with some examples which will be presented in the last column of the framework.

3.1.1 Positive framing changes
Framing activities can be positive and negative. The first type of changes to identify are the positive framing activities. Positive framing relates to a situation where something is described in terms of gained benefits (Maheswaran & Meyers-Levy, 1990). An example of this can be found on Nestlé’s page. Here someone deleted “which campaigners claim contributes to the unnecessary suffering and deaths of babies”. Leaving this part of the sentence makes Nestlé’s activities not seem as bad as they really are.

3.1.2 Negative framing changes
The next row of the framework will exist of negative framing changes. This is a situation where something is described in terms of lost benefits (Maheswaran & Meyers-Levy, 1990). These changes are often with a cynical tone. These changes are, for example, made by anti-brand communities that say something negative about a company. For example, on the Wikipedia page of Nestlé, I found this sentence: “One of the most prominent controversies involving Nestlé concerns the promotion of the use of…”, after a while, someone change “the promotion of…” into “the aggressive promotion of…” and clearly doesn’t agree with Nestlé’s marketing strategies.

3.1.3 Factual Changes
There are also changes that add value to an article by adding some facts like dates. These changes are substantively, but without the aim to change somebody else’s perception of a certain subject. This is what distinguishes it from framing changes.

3.1.4 Sentence and spelling changes
Sometimes, changes are made because a spelling mistake of one of the previous changes was adjusted. Or something was changed within the sentence, for example the order of the sentence was changed, or someone prefers to use another word that fits better. These changes do not cover
directly related to the corporate scandal and will therefore be filtered out.

After the case has been analyzed, it became clear that most changes were made to restructure the paragraph, namely 11. One change was a cynical, someone that had not a positive word for Mc Donald’s at all. Also some framing activity was found, five in total. For example someone deleted the words “Unhealthy” and “Unethical”, after someone claimed that the film Super Size Me showed that Mc Donald’s was so.

3.3 Nestlé
The next B2C company that will be analyzed is Nestlé. Nestlé is a Swiss food company, founded in 1866. It’s today’s market leader of nutrition, health and wellness (Nestlé.nl, 2015). On Nestlé’s Wikipedia page, a paragraph can be found about a boycott against Nestlé. This boycott started in 1977 because of aggressive marketing practices in developing countries for their breast milk substitutes (The Guardian, 2007). This issue was already happening for a long period, but became news again when nineteen international NGOs, including Oxfam and Save the Children, wrote an open letter to Nestlé.

In this paragraph, Contropedia indicates two words as controversial. These include: less economically developed countries and Oxfam. Both words are directly related to this scandal and will be used in the analysis.

During the analysis of the Nestlé case, a lot of changes were found in the category of spelling/sentence and restructuring changes. Most of the factual changes that were found were caused by some discussion that were going on about some dates. One of the changes is seen as sabotage. Also some framing activities were discovered.

An overview of the exact numbers can be found in table 2.

3.4 BP
The last B2C company that will be analyzed is BP. Although this company also delivers products to other companies, this company will be considered as a B2C company in this paper, since BP is mostly known for its gas stations. Also on their website, they describe themselves as a company that produces fuel for transportation, energy and to make products for everyday items. (BP.com, 2015). They clearly focus on customers on their website.

The corporate scandal that is related to BP is the Deepwater Horizon oil spill. On April 20, 2010, there was an explosion on board of the Deepwater Horizon drilling rig in the gulf of Mexico. The explosion killed 11 workers and the oil started to flow into the ocean, which caused the largest environmental disaster in the history of the United States (BBC, 2010).

any of the article’s content and will be labeled under sentence and spelling changes.

3.1.5 Restructuring changes
Like the previous category, these changes do not include anything that adds or leaves something substantively to the article. But changes that will be labeled as restructuring include moving a paragraph or sentence to another part of the article, leaving it out because it does not add something valuable or something minor like a link was added.

3.1.6 Vandalism
The last category are changes that make no sense at all. Wikipedia has users that destroy pages by deliberating and malicious editing (Priedhorsky, Chen, Lam, Panciera, Terveen & Riedl, 2007). Such edits include deleting whole sections for no reason, add non-related information, etc. A good example of this can be found in the history of the Mc Donalds Page. Here someone added: “fergfluqo;robhodb343rip341to;fii3hqg;oi3qygpf983qa8fy3wcf;flqajolfrklkre.hjbo9elfi;hry3o;eqrhbf-983mnovin4hy98oiny98-4psai24lpgvzjogfd743lehrg8qreghqre9gnoirchs8g45g” in the criticism section. This clearly doesn’t add anything to the page. A change that will be labeled in this category can be seen as sabotage, without any substantively value.

Table 1: Overview of the framework

<table>
<thead>
<tr>
<th>Type of change</th>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive framing changes</td>
<td># of changes</td>
</tr>
<tr>
<td>Negative framing changes</td>
<td># of changes</td>
</tr>
<tr>
<td>Factual changes</td>
<td># of changes</td>
</tr>
<tr>
<td>Spelling/sentence changes</td>
<td># of changes</td>
</tr>
<tr>
<td>Restructuring changes</td>
<td># of changes</td>
</tr>
<tr>
<td>Vandalism</td>
<td># of changes</td>
</tr>
<tr>
<td>Total amount of changes</td>
<td># of changes</td>
</tr>
</tbody>
</table>

3.2 Mc Donald’s
The first B2C company that will be analyzed is Mc Donald’s. Mc Donald’s is the world largest food chain concern with more than 34,000 restaurants in 119 countries (Mcdonalds.nl, 2015). The company is known for their fast food concept. In 2004, Morgan Spurlock produced the documentary Super Size Me. This film showed how unhealthy food of Mc Donald’s is. It causes for example some serious liver damage (The Guardian, 2004).

On the Wikipedia page of Mc Donald’s, there’s section about criticism. Within this section, a small paragraph exists about the documentary of Morgan Spurlock with 5 controversial words in it. One of these words, Happy is not directly related to the corporate scandal and seems not relevant to the subject, so this word will be left out. The four remaining words are: Morgan Spurlock, documentary film, Super Size Me and obesity. Not all the changes that are made with one of these words in it are directly related to the Super Size Me discussion. For example, the word Super Size Me is also mentioned in the “See also” section at the bottom of the page. These changes are not relevant for the corporate scandal, and will therefore be filtered out.

The company scandal that is related to BP is the Deepwater Horizon oil spill. On April 20, 2010, there was an explosion on board of the Deepwater Horizon drilling rig in the gulf of Mexico. The explosion killed 11 workers and the oil started to flow into the ocean, which caused the largest environmental disaster in the history of the United States (BBC, 2010).
During the analysis, this scandal seemed to be much more controversial than the other ones, since the article contains 14 controversial words with almost 400 revisions which are directly linked to this corporate scandal. Where other analyzed scandals had no more than 6 controversial words with maximal 50 revisions in it. Because this difference with other cases is quite high, only one controversial word will be included in this analysis. The most controversial one, Deepwater horizon oil spill, will be picked. This word is used in 86 revisions and should therefore be sufficient to detect possible framing activities. 14 of these revisions are positive framing activities. In this paragraph, a discussion started between advocates and opponents of BP. Therefore, also 10 negative framing activities were discovered.

3.5 HSBC
After the B2C companies have been analyzed, it is time to focus on the B2B companies. The first one to be analyzed is HSBC. HSBC is one of the largest banks of the world. HSBC has a private banking department, but most activities are business related, including providing financial services to small and medium enterprises, investment banking, etc. (hsbc.com, 2015). Because of this strong connection with other businesses, HSBC will be analyzed as a B2B company. HSBC is often criticized for their commitment with fraud scandals. The most recent one was in 2013. In 2013, HSBC agreed with the U.S. to pay $1.9 billion, because they were involved in a money laundering scandal in Latin-America (Bloomberg, 2013).

On HSBC’s Wikipedia page, there is a large paragraph about the money laundering scandals. This paragraph has three controversial words in it, including money laundering, Arvind Kejriwa and HBUS. The first two words are fully related to the money laundering practices, but HBUS is also related to several other topics within the Wikipedia page. Only two of the changes with the word HBUS in it are related to money laundering. Therefor these two changes, together with all the changes with the first two words in it will be used in the analysis of the scandal. During the analysis of this case, two positive framing changes were found. The others were adding some new information, changing the sentence order or adding some links.

During the analysis, 25 changes seemed to involve framing activities. 15 of them are positive framing activities and 10 are negative. Of the remaining changes, 6 are factual changes, 1 is vandalism and the other 54 changes are labeled as spelling/ sentence changes or restructuring changes.

3.6 Monsanto
The next company to analyze is Monsanto. Monsanto is a company that develops and produces agricultural products for farmers and is therefore a typical B2B company. They produce for example seeds for corn, cotton, oilseeds and fruits and vegetables (Monsanto.com, 2015).

Since Monsanto started to produce Agent Orange, they became controversial. This has also to deal with the fact that they produce genetically modified products. Things even got worse when Monsanto was accused for being the reason who many Indian farmers committed suicide. They claimed that the price of Monsanto’s crops was too high and that due to failed crops, the farmers became desperate and saw no other way out than committing suicide (Daily Mail, 2008).

Contropedia gives six controversial words in the paragraph about the suicide of the Indian farmers. These words include Andhra Pradesh, International Food Policy Research Institute (IFPRI), socio economic, Vandana Shiva, rupees and Indian Council of agricultural research. All these words are directly related and will therefore be used for the analysis. After the analysis of all the controversial words, most of the changes found were restructuring and spelling changes. Only a few factual changes were found and also 1 positive framing and 1 negative framing activities could be discovered.

3.7 PricewaterhouseCoopers
The framework will be completed with an analysis of PricewaterhouseCoopers (PwC). PwC is a company that offers audit, assurance and consultancy services. It exists of a network of 195,000 employees dispersed over 157 countries (pwc.nl, 2015). These services are offered to other companies and therefore PwC is a B2B company.

The scandal that will be analyzed is the Satyam case. Satyam is an Indian computer service company and reported more than one billion dollars of false profit in 2009. At this time, PwC failed to audit this company. In 2011, PwC was found guilty and had to pay $7.5 dollars as a penalty (New York Times, 2011).

The paragraph about this scandal on PwC’s Wikipedia page has two times the controversial word Satyam in it. This is the only controversial word related to this corporate scandal, so only one word need to be analyzed. The discussion about this topic started in January 2009, just after the scandal occurred. It was first placed in the abstract and later on it got its own paragraph in the section called controversies. The discussions in both sections are relevant to the scandal, so they will both be included. After the analysis, the word Satyam did not seemed to be used in framing activities. Of the changes made involved factual changes, 5 have to do with spelling and sentence order and the remaining 11 restructuring changes.

3.8 Completed Framework
In table 2 an overview can be found of the findings of sections 3.2 to 3.7 according to the framework that has been developed in section 3.1. The interrater reliability calculated using Cohen’s Kappa was found to be good
(0.64) based on 95 double annotations (Landis and Koch, 1977). The results will be discussed in the discussion section.

**Table 2: Completed Framework**

<table>
<thead>
<tr>
<th>Type of change</th>
<th>Mc Donal’d’s</th>
<th>Nestlé</th>
<th>BP</th>
<th>HSBC</th>
<th>Monsanto</th>
<th>PwC</th>
<th>Illustrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive framing changes</td>
<td>5</td>
<td>7</td>
<td>14</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>On BP’s page, someone deleted “BP has been involved in several major safety incidents...”</td>
</tr>
<tr>
<td>Negative framing changes</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>On Nestlé’s page, someone changed the word controversial into unethical.</td>
</tr>
<tr>
<td>Factual changes</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>On Nestlé’s page, someone change a date from 1984 to 1977.</td>
</tr>
<tr>
<td>Spelling and sentence changes</td>
<td>5</td>
<td>13</td>
<td>22</td>
<td>5</td>
<td>16</td>
<td>5</td>
<td>On Monsanto’s pages, someone added a comma and the word by to the sentence “In 2008, a report published by the International Food Policy Research Institute...”, to improve the quality of the sentence.</td>
</tr>
<tr>
<td>Restructuring changes</td>
<td>6</td>
<td>18</td>
<td>33</td>
<td>10</td>
<td>30</td>
<td>11</td>
<td>On Monsanto’s page, someone moved “Stolen Harvest: The Hijacking of the Global Food Supply by Vandana Shiva” to another more relevant paragraph on the page.</td>
</tr>
<tr>
<td>Vandalism</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>On BP’s page, a user added “What Nestle did was wrong and we apologize, we have considered shutting the company down” random in the article and is of course false information.</td>
</tr>
<tr>
<td>Total amount of changes</td>
<td>19</td>
<td>48</td>
<td>86</td>
<td>19</td>
<td>52</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

**4. DISCUSSION & CONCLUSION**

In the third chapter of this paper, a framework was constructed to find framing activities on Wikipedia pages. After the construction of the framework, the framework was used to analyze six different cases. The outcomes of the analysis are provided in table 2. These outcomes should help to answer the research question stated in the first chapter. In the next section, the findings will be discussed, an answer to the research question will be provided and the limitations and possibilities for future research will be discussed.

**4.1 Findings**

Table 2 in chapter 3 gives an overview of the outcomes of the analysis of the six cases. Overall, most changes made on Wikipedia pages in relation to a corporate scandal are not with respect to content. This kind of changes are spelling improvements, changes in sentence order and changes related to the structuring of the article. Also some sabotage was discovered.

The changes that added something to the content can be divided into two categories: Framing activities and factual changes. The framing activities that were discovered include as well positive as negative framing activities, but for this paper the positive activities are more important than the negative ones, since this research focusses on corporate scandals. Despite of this, also some negative framing activities were found. The negative framing activities can be explained by the fact that a lot of examples of discussions were found between users. This discussions involved users responding to positive framing by reframing it in a negative way.

**4.1.1 Comparing B2C and B2B**

After the analysis of the six cases the results of framing activities in B2C and B2B companies can be compared. This should help to find an answer to the research question, provided in the first chapter. In the analyzed B2C companies, some positive framing activities were found. In the analyzed paragraph of Mc Donald’s 5 framing activities were observed, in the analyzed paragraph of Nestlé 7 and in BP’s observed paragraph, this number was 15. Less framing activities were found in the B2B cases. Here, the highest number of positive framing activities was 2. This was in HSBC’s page. In Monsanto’s paragraph one positive framing activity was discovered and in PwC’s there were not any framing activities at all. This means that
a significant difference exists in framing activities of B2C customers compared to B2B customers.

The observed difference in framing activities between customers of B2C and B2B companies can be possibly explained by the fact that the emotional aspect is much important in the relationship between a B2C company and its customers than it is in the relationship between a B2B company and its customers (Mudambi, 2002). This makes customers more loyal and more likely to join a brand community that causes the framing activities.

4.2 Conclusion
In the first section, the research question was stated as follows: “How do customers of B2C companies try to frame negative formulations on Wikipedia after a corporate scandal compared to customers of B2B companies?”

After the analysis of six corporate scandals on Wikipedia pages of large companies, there seemed to be a significant difference in the amount of positive framing activities. Customers of B2C companies tend to be more active in framing after a corporate scandal has occurred. Not only positive framing occurs, but a discussion starts between advocates and opponents of a certain company. This difference between B2C and B2B companies is in line with the existing literature that states that for customers of B2C companies, emotional and functional benefits of a relationship are the most important criteria, where for B2B customers, the functional aspect important is (Mudambi, 2002). Therefore customers of B2C companies will feel more committed with a company than customers of B2B customers.

4.3 Limitation and Future research
This research was done for a bachelor thesis at the University of Twente. For this thesis, ten weeks were scheduled to finish it. Due to this time span, it was not realistic to go in more depth for various topics, and choices had to be made in relation to data selection. Therefore this study has some limitations, which are interesting gaps for future research. First, the choice was made to investigate large companies and it is therefore not clear whether this findings are also reliable for smaller companies, this could be an interesting topic for future research. Second, this research was an exploratory research on the field of the new developed software tool Contropedia. In this research, framing activities were observed in relation to corporate scandals, but Contropedia is a tool that generates interesting data for other interesting topics for future research. Third, In this paper the focus lays on framing activities on Wikipedia pages, but it is not sure if the findings are also reliable for other online media sources like Facebook and Twitter for example.
5. REFERENCES


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