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### Managing the uncontrollable: Empirical studies of user-generated content online

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## CHAPTER 1

### INTRODUCTION

#### 1.1 USER-GENERATED CONTENT ON THE INTERNET

On 13<sup>th</sup> April 2009, a prank video featuring an employee from one of the Domino's Pizza franchises besmirching the products went viral online, generating over a million views on YouTube before it was removed from the site. Sensing a public relation crisis, the company responded to the video within two days. A clip featuring Patrick Doyle, then U.S. president of the chain, denouncing and apologizing for the acts, was published on the same platform.<sup>1</sup> However, the damage had already been done; the franchise was eventually shut down five months later. The incident has since become case study material for reputation management in the internet era (Gaines-Ross, 2010). Fast-forward to 2012: on 13<sup>th</sup> August, Domino's embraced internet users by launching a co-creation project with Local Motors, a virtual community for car design and engineering enthusiasts. The crowdsourcing project, titled "Ultimate Delivery Vehicle Challenge," asked community members to design a vehicle tailored specifically for pizza delivery.<sup>2</sup> The project aimed to improve Domino's delivering process and offered cash prizes for the winning design. Taking ideas from the 152 contributed members, Domino's is now working together with the virtual community members to build the final prototype of their new delivery vehicle.<sup>3</sup>

Domino's ambivalent relationship with the internet is not uncommon. Ever since the rapid growth of the internet in the late 1990s and the emergence of social media in the past decade, user-generated content has become a prominent part of the interactions between companies and consumers. Platforms such as YouTube, Twitter,

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<sup>1</sup> [http://www.nytimes.com/2009/04/16/business/media/16dominos.html?\\_r=2&th&emc=th&](http://www.nytimes.com/2009/04/16/business/media/16dominos.html?_r=2&th&emc=th&), last accessed 21 August 2013.

<sup>2</sup> <https://forge.localmotors.com/pages/competition.php?co=70&tab=design-brief>, last accessed 20 August 2013.

<sup>3</sup> <http://localmotors.com/blog/post/the-ultimate-delivery-vehicle-project-update-rendermania/>, last accessed 20 August 2013.

Facebook, blogs and forums have granted internet users easy access to ways of sharing their ideas and opinions with others. This frequent and abundant user-generated content online also helps companies to understand modern consumers. The growing number of outlets provides companies with channels to directly observe consumers and gain insights into them.

Online opinions that are directly related to products, services, brands and companies are often regarded as electronic word-of-mouth (Hennig-Thurau et al., 2004) or online buzz (Thomas, 2004). These online consumer voices have been studied extensively and are believed to influence consumer behavior (e.g., Gruen, Osmonbekov and Czaplewski, 2005) and firm performance, considering, for example, stock price (e.g., McAlister, Sonnier and Shively, 2012), or product sales (e.g., Chevalier and Mayzlin, 2006). They have also been noted to have implications for new product introduction and diffusion (e.g., Clemons, Gao and Hitt, 2006), and reputation and brand image (Jones, Temperley and Lima, 2009). For example, internet has provided consumers with the opportunities to connect with others and to form alternative or counter-brand communities that could compete with or threaten companies' offerings (Cova and White, 2010). Although not all companies and product categories are found to be influenced by user-generated content online (e.g., Ho-Dac, Carson and Moore, 2013), studies have highlighted the critical role it plays in consumer decision-making. In general, it is believed that positive content is beneficial for companies while negative content should be avoided (e.g., Chevalier and Mayzlin, 2006).

One of the reasons that the internet has become so powerful is the transparency that it creates. The increasing interconnection and constant visibility of information has empowered consumers (Shankar and Malthouse, 2007). Companies' behavior, online and offline, is now under close scrutiny by internet users. How companies are perceived by the public is no longer controlled by their own communication efforts, but is often shaped by responses and conversations of consumers online. Both favorable and unfavorable discussions can spread fast across the networks. This "uncontrollability" (Dobele, Toleman and Beverland, 2005) has been one of the main challenges for marketing scholars and practitioners.

The degree of uncontrollability may be influenced by two factors: the types of the platforms and the form of the online discussions. With respect to the type of platform,

user-generated content may occur anywhere online. One of the key characteristics is that consumers may proactively initiate online communication, such as establishing communities (e.g., Muniz and O'Guinn, 2001), and publishing opinions on blogs (e.g., Kozinets, 2002). These user-initiated activities are distinct from company-initiated platforms which companies build to establish a relationship or induce productive feedback on particular brands or products. Though internet users may engage in creating user-generated content regardless of who has the control over the content on the platforms, platforms that are created and maintained by companies tend to provide greater managerial control (Porter, 2004). Adapted from the definitions in the prior literature on virtual communities (Porter, 2004; Jang et al., 2008), online outlets for commercially-relevant user-generated content can be distinguished by considering the actors that administer and command the content.

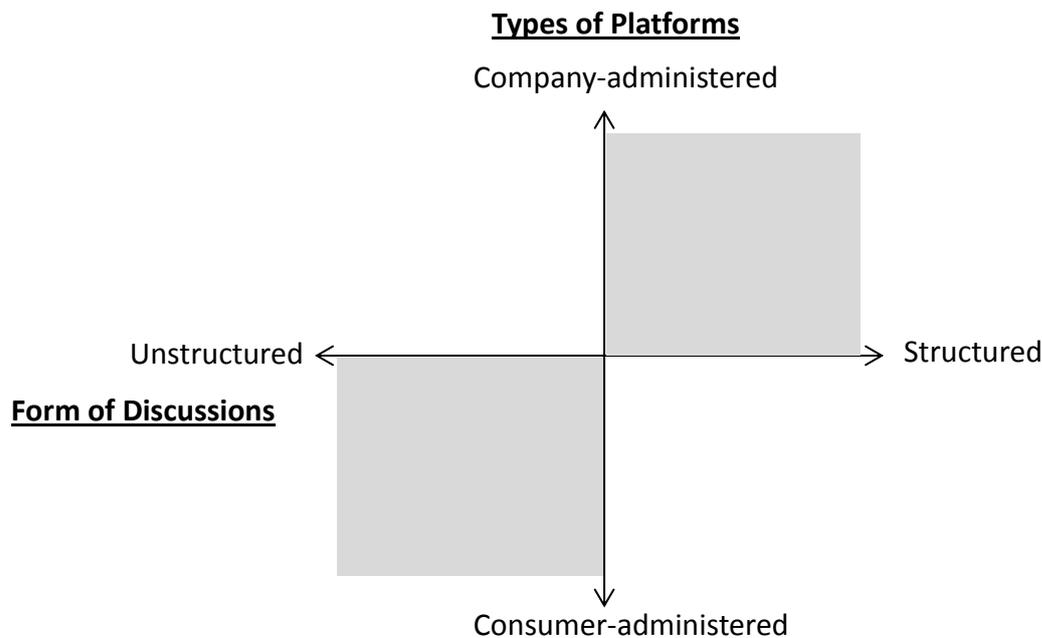
At the two extreme ends of this command spectrum, consumer-administered and company-administered platforms can be found. User-generated content on consumer-administered platforms is administered and maintained voluntarily by consumers. Users tend to have full control over what is published, i.e. they either set the rules themselves (collectively) or there are no specified rules. On the other hand, there are company-administered platforms, where companies are in charge. While user-generated content on company-administered platforms can be created by users, they are managed by companies that which determine the platform rules. Both types of platforms can result in economic benefits for companies and have been previously studied (e.g., Cova and Pace, 2006; Hatch and Schultz, 2010). In between these two extremes, but closer to consumer-administered than to company-administered, are platforms such as YouTube, Facebook and Twitter, which are run by companies, but internet users may establish their own channels and pages to discuss other companies. Users on these platforms have control over the content, unless they are breaking the rules (e.g., intellectual property rights and laws). Personal channels as such would yield more consumer control than company control. Similarly, the same platforms also allow companies to establish their own (brand) pages and welcome general discussions and reviews. Such channels give companies more control, though not as much as company-owned ones, such as Dell IdeaStorm.

With respect to the form of discussions, network ties and sizes have been found to influence the diffusion (Liu-Thompkins and Rogerson, 2012), the creation (Shriver, Nair and Hofstetter, 2013) and the value (Ransbotham, Kane and Lurie, 2012) of user-generated content. Content that is connected to specific social networks, such as discussions on virtual communities and forums, is shared among a particular group of registered users. The information is linked and transmitted through network ties. This provides relatively larger opportunities for companies to follow the content generated by users, compared to content that is scattered on various platforms. User-generated content published on loosely or non-connected platforms, such as individual blogs, Twitter, and personal websites, are much more difficult to locate and follow. Prior research has found that discussions on various platforms could reveal different patterns of sentiments (Smith, Fischer and Yongjian, 2012), which highlights the importance and the challenge of tracking down scattered buzz on the internet. Content on these platforms is broadcasted to the web to unpredictable, anonymous and often random readers, which increases the uncontrollability of the communications. Considering the form of user-generated content, online discussions can be distinguished into structured and unstructured buzz. Structured buzz is user-generated content that occurs on one single platform and is organized and connected via threaded or structured discussions. On the other hand, unstructured buzz means related user-generated content that is scattered across the web and not necessarily connected.

Figure 1.1 depicts the typology of online buzz, resulting from the combination of the two dimensions. Companies have the highest control in terms of content management in a company-controlled platform with structured discussions. In contrast, user-generated content that occurs on the consumer-administered platforms with unstructured discussions would be the most difficult to influence and control. To help companies develop strategies for managing user-generated content, there is a growing stream of research investigating motives of users to generate content online (e.g., Daugherty, Eastin and Bright, 2008; Füller, 2010; Ho and Dempsey, 2010). Despite individual heterogeneities, online users can be grouped by the structure and the purpose of participating on different platforms (Ransbotham, Kane and Lurie, 2012; Sohn, 2009). However, prior research has not investigated explicitly the correspondence between platform characteristics and strategies to manage user-generated content on these

platforms. To date, few studies have addressed or discussed the potential interplay between user-generated content and its “uncontrollability,” based on the context of the platforms.

**Figure 1.1** Typology of User-Generated Content



This thesis focuses on the two contrasting typologies, marked in grey in Figure 1.1, i.e., structured discussions on company-administered platforms and unstructured discussions on consumer-administered platforms. These two typologies represent the scenarios where companies have the most and the least control over the user-generated content. Considering the influence of platforms and discussion characteristics, the studies investigate the factors that influence the content of online discussions, more specifically, the valence and opinions expressed in user-generated content. Furthermore, and specific to the two contrasting typologies, it examines 1) how these factors can be influenced and managed in “uncontrollable” situations, namely, unstructured discussions on consumer-administered platforms, and 2) how they can influence the output of discussions in “controlled” situations, namely, structured discussions on company-administered platforms. To address these research questions, this thesis explores user-generated content online in two different and specific empirical settings,

namely, product-related corporate social responsibility concerns and brand/product-related co-creation ideas. These two contexts are chosen for their relevance to modern business practices.

In recent years, there has been an increasing demand on companies to proactively communicate their corporate social responsibility online. However, these communications often face skeptical consumers and are threatened by potential negative word-of-mouth (e.g., Du, Bhattacharya and Sen, 2010) or even boycotts that are initiated by individuals through the internet (e.g., Koku, 2012). While many researchers advised companies to proactively engage with online users via structured communities (e.g., Korschun and Du, 2013), their communications may unintentionally go viral. It is thus important to explore user-generated content in response to company communications and to investigate the potential factors that can influence the formation of online buzz. This will help managers understand how companies can maintain control when dealing with unstructured consumer-initiated communications.

Besides preventing negative consequences of user-generated content, companies can proactively utilize the “crowd wisdom” through the same outlets (Kozinets, Hemestberger and Schau, 2008). The process of gathering ideas from internet users to help companies develop new products and/or enhance their current offerings is often referred to as crowdsourcing or co-creation (Füller, 2010), as illustrated by the example of Domino’s. Co-creation often occurs in structured communities and consists of the collective efforts of online crowds, which often can directly benefit company performance and value creation (e.g., Grönroos, 2011). In recent years, many companies have established similar campaigns to explore the possibility of collective innovation and creativity among internet users, yet only a few have succeeded in seizing the opportunities (Kohler et al., 2011). This implies that there are still challenges in setting up co-creation communities for users. For example, it remains unclear why some discussions are more popular than others and why some communities generate more creative output than others. This thesis intends to understand under what conditions, considering the influence of external environment, companies may profit from user-generated content on co-creation platforms and how this can best be managed. The next two sections briefly discuss the two chosen contexts, followed by an introduction to the chapters.

## 1.2 CORPORATE SOCIAL RESPONSIBILITY COMMUNICATIONS AND USER-GENERATED CONTENT

With increasing public engagement on the internet, one of the challenges that companies are dealing with is that new ways of spreading information about responsible business are opening up. Activists, general consumers and other stakeholders may start the debate online about a particular social issue that a company is facing (Taylor, Kent and White, 2001). The online debate can be triggered by many factors: people may learn about the social issue and companies' initiatives from news reports, respond to new product introductions, react to online discussions or simply notice press releases issued by companies. The heightening transparency resulting from the growing accessibility of information on the internet has increased companies' pressure to voluntarily disclose and communicate relevant information online. Traditionally, this information was regarded as part of public relations management where journalists were the main audiences concerned. However, corporate communications nowadays are often directed to, or picked up and discussed by, internet users other than professional journalists (Wright and Hinson, 2008). In other words, even when companies do not intend to proactively communicate with consumers, the information can still be circulated, judged and commented on widely by internet users.

Thus, one of the first issues that companies are confronted with when developing their corporate social responsibility communication strategies is to decide whether to passively listen and observe the discussions online or to initiate and join the discussions with internet users. Given that consumer awareness of company initiatives addressing corporate social responsibility is generally low (Sen, Bhattacharya and Korschun, 2006), many companies choose to communicate proactively with stakeholders about particular social issues (Fieseler, Fleck and Meckel, 2010). It is suggested that this proactiveness could transform company-initiated communications from a one-way to a two-way interactive process (Jones, Temperley and Lima, 2009), which potentially gives companies more control as they can (partly) guide the direction of the debate. However, not only do companies' communications trigger discussions among internet users, they may also lead to unfavorable reactions. Although socially responsible practices are proven to generate positive business benefits (Luo and Bhattacharya, 2006),

communicating about them may not guarantee positive responses due to consumers' cynicism and low trust (Sen and Bhattacharya, 2001). Contrary to companies' hopes of generating positive responses online, user-generated content often negatively influences company performance and reputation in a significant way (e.g. McAlister, Sonnier and Shively, 2012).

Limited efforts have been made to understand internet users' responses to companies' corporate social responsibility communications. Most of the prior studies have focused on boycotts that resulted from irresponsible company behavior (e.g., Kerr et al., 2012; Koku, 2012). Online opinion platforms, such as blogs, have been identified as key channels for consumers to initiate anti-consumption activities (Kerr et al., 2011) and to mediate brand reputation (Siano et al., 2011). However, unlike the traditional activist groups or anti-brand communities, one of the key perils of the era of social media is that anyone and everyone can produce content online. These discussions may happen simultaneously across all online channels that are not necessarily connected with each other. The unstructured discussions scattered around the internet may make it seem impossible for companies to tackle them. Yet, the impact of these seemingly uncontrollable opinions has been found significant in previous studies (e.g., Meraz, 2011). These findings indicate the intensified pressure on companies to value and become acquainted with what has been communicated online by internet users related to their efforts in addressing social issues.

Understanding uncontrollable user-generated content is especially important for companies in industries that are suffering from a high degree of scrutiny from the public (Palazzo and Richter, 2005), such as the oil industry for environmental concerns, the tobacco industry for health issues, and the food industry for the obesity epidemic. These companies, and their legitimacy, are often the subject of societal debates and consumer skepticism (Du and Vieira Jr., 2012). While well-connected internet channels and the era of information overflow may have helped overcome the concerns over low awareness among consumers about companies' social activities, consumer skepticism may have stayed at the same level, if not increased. As a result, for companies that are on riskier ground with their reputation, it is thus critical to investigate how internet users pick up and interpret corporate communications and to understand the potential informational cues that could trigger negative responses.

Chapters two and three contribute to the debate on how companies that are confronted with societal debate may (proactively) communicate their policies in dealing with user-generated content. Focusing on the direct communications issued by companies, i.e., press releases, and the unstructured online buzz they have accumulated in consumer-hosted platforms, i.e., the blogosphere, specific attention is paid to analyzing the influence of the “controllable elements”. In particular, the studies investigate three potentially manageable factors from companies and their influence on user-generated content, namely, the content of their communications, the fit level between companies and their initiatives, and companies’ associations with the social issue. While the topic of corporate communications is often the key for consumers to evaluate perceived information, it has been found that the level of fit between the corporate social responsibility activities and the company may also explain consumer reactions (e.g., Becker-Olsen and Hill, 2006; Vock, van Dolen and Kolk, 2013). Moreover, brand association can be an important element influencing consumer judgments as well. In addition, the degree of association between a brand and a specific social issue (called *issue association*) (Aaker, 1996; Dean, 2004), may also influence the formation of user-generated content. Compared with the content of corporate communications and the fit level, however, issue associations may largely depend on consumer perceptions and could be more difficult to manage. A better understanding of how these factors can potentially influence online discussions following company communications can help reduce the uncontrollability of user-generated content in the context of unstructured consumer-initiated communications. Section 1.4 gives more details about/on these two chapters.

### **1.3 CO-CREATION AND USER-GENERATED CONTENT**

The second context of this thesis concerns co-creation brand communities that have structured discussions on company-sponsored platforms. Long before the popularity of the internet, brand communities existed already. Defined as “a specialized, non-geographically bound community, based on a structured set of social relations among admirers of a brand” (Muniz and O’Guinn, 2001: 412), brand communities support

interactions among users and create value for both brands and consumers during the process (Schau, Muniz and Arnould, 2009). Company-sponsored brand communities thus tend to have a structured network with specific goals. One type of community that particularly utilizes collective wisdom in producing tangible ideas and products is referred to as a “co-creation” community. Similar to the structure of any other online community, the vitality of such a collective process relies on users contributing ideas and commenting on each other (Füller, Jawecki and Mühlbacher, 2007). These company-initiated creative communities tend to have higher levels of concentrated innovations and focus on generating creative ideas, rather than maintaining social relationships (Kozinets, Hemetsberger and Schau, 2008). User-generated content, in this case, often directly contributes to companies by offering them new marketing ideas or suggestions to improve their current business processes. This shift of paradigm from consumers to “(co-)producers” has attracted research attention.

Prior research has mainly focused on understanding the motivations behind the contributions of users. In relation to user motivation, many studies investigate the design of the platforms to explore how users can be triggered and collective creativity can be enhanced through improving the quality of the platforms (e.g., Kohler et al., 2011). Less research has focused on the content itself and on how user-generated content is formed, controlled and managed in these online communities. In structured communities, the communal outcomes, such as collective creativity, length of discussion threads, and directions of online buzz, are actually the aggregated outcome of individually contributed content. To manage the community, companies must first understand how to control individual content. Most of the prior studies on online communities, however, have considered online user discussions as a single entity. It is only recently that the sequential or temporal dynamics have been considered in user-generated content formation (e.g., Li and Hitt, 2008). The dynamic view suggests that (initial) user-generated content may influence subsequent user-generated content and eventually influence the longitudinal development of the communities. This kind of influence may be explained by social influence theories on the underlying mechanisms of how information diffuses within structured networks (Iyengar, van den Bulte and Valente, 2011). Particularly on structured platforms, such as online communities, users have a higher connectivity with one another, which may result in a stronger influence on other

members. In other words, though companies face a more controlled group of target audiences in company-sponsored communities, there may still be some uncontrollable elements, such as influence from other users and previously published user-generated content that requires monitoring.

Furthermore, with regard to the outcomes of co-creation communities, it has been found that higher entertainment value and a more diverse knowledge level on the platform would lead to a more productive community output (Füller, Jawecki and Mühlbacher, 2007). Yet, what kind of user-generated content would result in more creative productions and discussions is still uncertain. For example, while emotional expression is the essence of online communication and the co-creation process often involves emotional engagement with the brand (Payne et al., 2009), the influence of collective emotions embedded in user-generated content on collective outputs has not yet been studied. In fact, despite sharing the same text-based format as other online activities, the common practices of sentiment analysis that have been used in mining the social web in other contexts have rarely been applied in analyzing co-creation communities. The systematic approach to investigating which attributes of user-generated content, such as valence, volume or variance, would influence the outcome of the community, has not yet been established. It thus remains unclear why certain discussions on communities are more popular than others and why some communities are more successful than others.

Chapters four and five aim to contribute to more insight into the issues listed above. In particular, building on the theoretical development of social influence, the studies investigate the impact of user-generated content on the formation of the subsequent content, the development of discussions, and the development of communities. To scrutinize user-generated content in the context of structured online forums, sentiments are distinguished between valence and agreement/disagreement of the user-generated content. These sentiments were found to influence users' interpretation of the piece of information and their subsequent responses in forming user-generated content (Chiou and Cheng, 2003; Kim and Gupta, 2012). Furthermore, to examine the emotional content of online communities, a subsequent distinction is made between the individual and collective level to understand how the influence of emotions on communities is formed. Based on a first-hosted online co-creation community, these

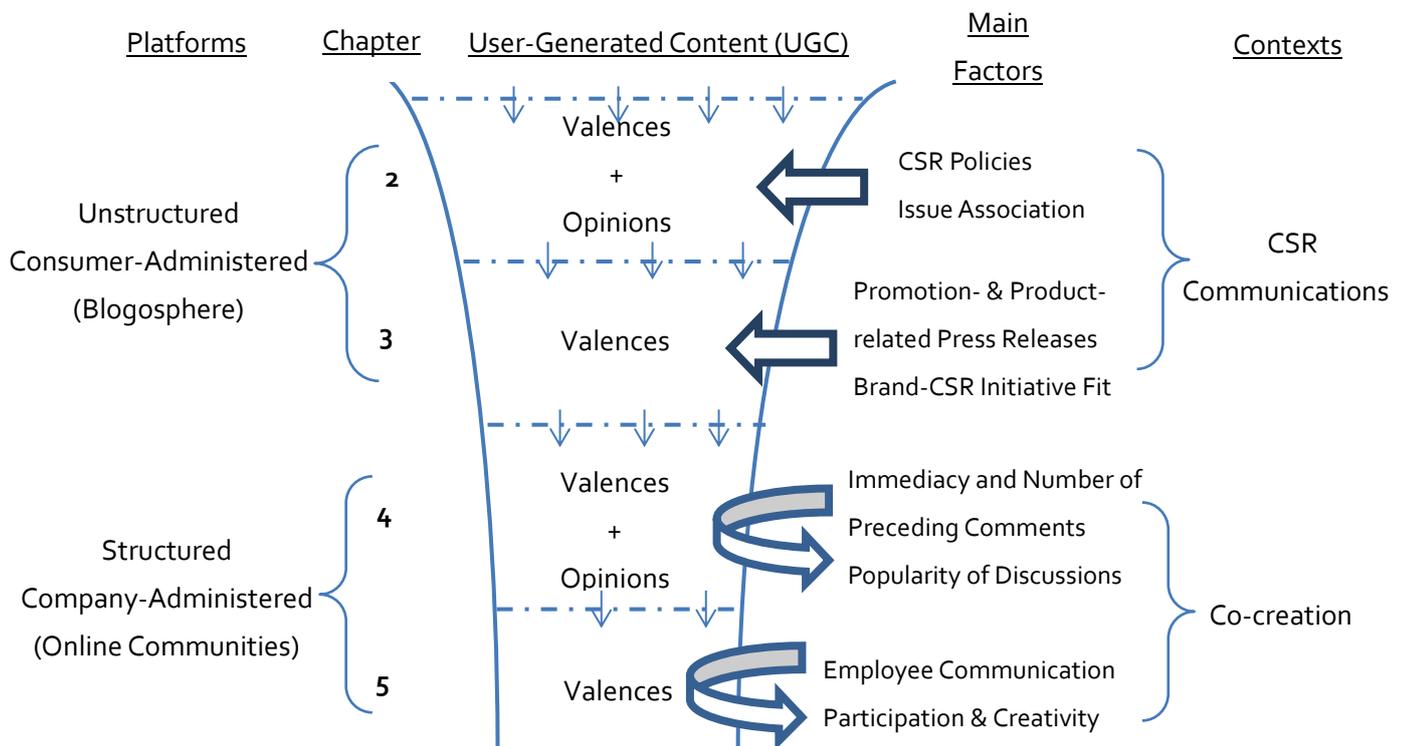
two studies intend to investigate the uncontrollability of user-generated content of structured buzz on company-sponsored communities and to explore to what extent the user-generated content can be managed by companies.

#### **1.4 INTRODUCTION OF THE CHAPTERS**

This thesis comprises four chapters based on four empirical papers conducted in collaboration with (co-)authors.<sup>4</sup> Due to the collaborative nature of the papers, “we” has been used instead of “I” in chapters two to five to represent co-authorship. These four chapters illustrate the two general contexts that are based on the two particular structural platforms as outlined above, with the second and third chapters having the obesity issue in the food industry as its empirical setting, followed by the fourth and the fifth chapter discussing online co-creation communities with the example of Dell IdeaStorm. Figure 1.2 depicts the thesis structure and the central focus of each chapter. The four chapters belong to two projects and thus overlap in theories and research settings. However, each of them stands as a separate study which can be read independently. The rest of the thesis is structured as follows:

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<sup>4</sup> I have been the leading author for the papers included in Chapters 3, 4 and 5. And while chapter 2 was a joint project – as expressed in the alphabetical author order – I bear full responsibility for the empirical analysis.

**Figure 1.2** Graphical Depiction of the Thesis

The first study, chapter two, aims to explore what information has been picked up and discussed by internet users in the context of obesity and the food industry. Press releases from 10 major food brands and the discussions in the blogosphere following company communications are examined. To advance the understanding of user-generated content in the particular context of corporate social responsibility communication, this study develops the coding scheme for the press releases based on previous suggested policies combating obesity in the food industry. To understand the potential reasons that have caused diverse responses among bloggers toward different company announcements, the associations that each brand has with the obesity issue is investigated. Taste-related press releases are found to not only generate more reactions but also more positive ones than knowledge-related communications. Issue associations have a large influence on the sentiments of buzz that a press release is likely to trigger: those with the highest obesity issue associations generate more negative buzz; however, low obesity associations lead to limited reactions in the blogosphere. The findings suggest that though the discussions online can indeed pose some threats to companies, the valence and the volume of the seemingly unpredictable user-generated content can

be predicted, to a certain extent, by the policy contents and companies' level of association with the social issues.

Following the findings of the previous chapter, and in order to apply the results to companies in a similar situation as those in the food industry, chapter three brings the coding of press releases to a more general level. Specifically, the influence of two factors on the sentiments of their corresponding discussions online is investigated: the content of the press releases, whether they are product- or promotion-related, and the level of fit between the corporate social responsibility initiatives and the company. The results from sentiment analysis conducted on the blog posts indicate that product-related press releases lead to more positive buzz, whereas promotion-related ones result in more negative responses. While a high fit between the initiatives and core business practices of companies leads to positive responses in general, modifications of current products, which are high-fit activities, lead to negative responses. This study reveals that internet users indeed respond to corporate communications that are not directed to them. Companies may try to "control" the direction of user-generated content by managing their communication content and the fit level of their initiatives. However, companies should be careful of a potential "controversial fit", which results from initiatives that highlight the unhealthy nature of original products.

Chapter four moves into the second context of the thesis; that is, co-creation. This study focuses on the influence of user-generated content with structured discussions on company-sponsored platforms. While conducting the previous project, it was observed that internet users may hold favorable emotions toward the company but unfavorable opinions toward their initiatives. Thus, the sentiments in this study are separated into valence, i.e., positive/negative emotions, and opinions, i.e., agreement/disagreement. Moreover, as mentioned in the preceding section, we studied how individual user-generated content can be influenced by preceding content. Based on social impact theory and attribution theory, the aim of the chapter is to examine the sequential bias that may occur during the discussion process and its influence on popularity. The findings suggest that individual users do not formulate content in isolation. Their emotions and opinions tend to be influenced by both the immediately preceding content and the content of the majority of others; the aggregated user-generated content then shapes the popularity of the discussions. We confirmed

these effects on co-creation communities. Discussions that are not highly emotional or in agreement, and have high variance in emotions and opinions, are more likely to be popular. The findings suggest that in evaluating user-generated content in a structured context, such as online communities, companies should consider the impact of the first piece of user-generated content.

The unexpected negative impact of positive emotions discovered in the previous chapter led to emotional content being the sole focus of the analysis in the final study, chapter five. The study introduces the concept of collective emotions that are aggregated emotions at the community level, alongside emotions that are embedded in individual content. Focusing on the longitudinal impact of collective emotions, this research intends to link the content of online buzz to user behavior and community performance. Creativity and participation, the two output measures of co-creation communities, are the main dependent variables that are examined. The findings yield paradoxical effects for collective emotions, suggesting that negative collective emotion reduces subsequent creativity, but encourages future participation. Furthermore, drawing on the theory of emotional contagion, the study investigates employee communications that can assist emotion management in communities. The results suggest that companies may manage emotions in online communities through direct interactions between employees and consumers. Employees' positive emotions can increase users' positive emotions and reduce negative ones. Furthermore, a task-oriented communication approach seems to increase the overall emotional responses from users, while a proactive communication approach appears to decrease the emotional level. Although co-creation generally presents opportunities for companies, the study highlights the importance of identifying and understanding the development of emotions in online communities in pursuit of favorable outcomes. Striking a balance of emotions embedded in the user-generated content seems key in the development of online communities.

The final chapter of the thesis, chapter six, concludes and compares the major findings of the four studies. General discussions reflecting the central research question and the two main themes are presented. The chapter summarizes the theoretical and managerial implications of the thesis, and discusses limitations and future research areas.