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A FIRM'S ACTIVITY IN SOCIAL MEDIA
AND ITS RELATIONSHIP WITH CORPORATE REPUTATION,
FIRM SIZE AND FIRM PERFORMANCE

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Abstract

The significance of social media has increased greatly in the past few years, leading companies to increase their social media activity and also increase their interest in knowing whether it is genuinely worth being active on social media, including knowing the potential advantages.

This study aims to examine the relationship between social media activity and three variables: reputation, firm size and firm performance. The study analyzes the relationships between the constructs but does not propose or discuss the direction, that is, the causal linkages, between the variables.

The type of research conducted for this study is quantitative research; it is based on data that are collected from companies' social media channels. The selected channels for this research are Facebook, Twitter, LinkedIn and YouTube. The data on corporate reputation are collected from secondary sources and are based on a survey of Finnish companies' reputations and responsibilities, implemented by a company called TNS Gallup. The data for firm performance and firm size are collected from companies' annual reports. The dependencies between different variables are examined by using the correlation analysis in IBM SPSS version 22.

The results of this study suggest that there is no relationship between social media activity and corporate reputation. Therefore, it cannot be demonstrated that companies that are active on social media have better or worse reputations than those of companies that are not. However, a partial relationship is found between social media activity and firm performance.

This research gives a good argument for the case that merely being active in different social media channels is not sufficient to enhance corporate reputation or financial performance. Even companies that are active on social media do not necessarily inherently experience positive reputations or healthy financial performance.

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1 INTRODUCTION

1.1 Background of the study

Today there are no companies that can say they are not affected by social media. Even if companies are not active on social media, there will be communication about brands on social media channels anyway. (Kietzman et al. 2011.) Social media has caused consumers to be more demanding, and therefore, one-way communication from companies to consumers is no longer sufficient (Jones et al. 2010; Trainor 2012). Instead, the importance of communication and conversations with consumers is now emphasized (Jones et al. 2010) because consumers want to be listened, to engaged by and responded to by companies (Kietzman et al. 2011). Consumers want to participate, interact and create value themselves (Trainor 2012), and in fact, it can be said that the dominance has shifted from companies to consumers (Bunting and Lipski 2000).

For this reason many companies have increased their social media activity. In addition to, the financial crisis has led companies to seek more cost-effective marketing methods, and social media has been revealed to be an effective marketing channel (Kirtiş and Karahan 2011). Despite these findings, many companies still do not understand social media well, and as a result, they simply ignore it (Kietzman et al. 2011). Therefore, it is important to determine whether it is genuinely worth being active on social media, including knowing the advantages.

Literature on the subject is increasing, but there is still little evidence for how social media use influences companies. Previous studies have found that social media, in particular electronic Word of Mouth (eWOM), brings risk to corporate reputations (Aula 2010; Firestein 2006), and other literature on the relationship between corporate reputation and social media concentrates mostly on social media risks to reputation. Luo et al. (2010), in contrast, suggest that social media has strong predictive power for a firm's future equity value. Little research, however, has been conducted on how individual companies' social

media activity affects their reputations and firm performance. Hence, this study aims to determine whether there is a relationship between reputation, firm performance and the use of social media.

1.2 Research objectives and problems

This research examines companies' social media activity and its relationship to corporate reputation, firm size and firm performance. The main objective of the study is to examine the relationship between social media activity and those three outcomes; the study analyzes the relationships between the constructs but does not propose or discuss the direction, that is, the causal linkages, between the variables. The research proposes two research questions:

- Does social media activity have a relationship with good firm performance?
- Do companies that are active on social media have better reputations from the consumers' point of view?

The main focus of the study is on the relationship between corporate reputation and social media activity. In addition, the study examines the relationship between this activity and firm performance and firm size.

1.3 The study structure

This research consists of six chapters. The first chapter introduces the research, research objectives and problems, and study structure. It is followed by a theory section that consists of two chapters, "Social media" and "Corporate reputation". These chapters aim to explain previous theories and research on the subject. Theory is followed by the methodology section which presents the methods used in the research. Subsequently, the study results are presented, and the final section outlines the study's contributions and its main limitations. The structure of the study is presented in Figure 1.

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- Study structure

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FIGURE 1: The structure of the study

2 SOCIAL MEDIA

2.1 The concept of social media

In the literature, social media is defined in many different ways, but the essence of the defintions is the same: social media is a way to connect to and interact with other people using different online communication techniques. (Kietzman et al. 2011; Kirtis and Karahan 2011; Ryan and Jones 2009, 152.) Whereas traditional media is about delivering the message (out bound marketing), social media is user-driven (in bound marketing), including, for example, building relationships and conversing with one's audience (Drury 2008). Social media consist of various channels and platforms that allow for communication, networking and sharing content and information (Bowman et al. 2012; Kietzman et al. 2011).

Social media is often considered a new phenomenon, but Ryan and Jones (2009, 152), for example, report that social media has existed for long as the internet; posting messages online and chatting has been possible from the beginning (Ryan and Jones 2009, 153). Boyd and Ellison (2008) also observed that in 1997, the social networking service SixDegrees had similar features to those of Facebook now, e.g. the possibility to create profiles, create friend lists, etc.

In recent years, social media use has changed, and it has been adapted to people's everyday lives. At the same time, its importance has increased significantly. (Ryan and Jones 2009, 152.) Social media has also expanded greatly, and today, it includes numerous communication channels and possibilities for sharing all different types of content such as audio, video, text, images and all other media (Drury 2008; Jue et al. 2010, 44; Ryan and Jones 2009, 152).

Social media has also greatly increased the significance of word of mouth (WOM). WOM has been widely considered an important influence on consumers' decisions and attitudes. (Abrantes et al. 2013; Daugherty and Hoffman 2014; Gruen et al. 2006.) Traditionally, WOM has been considered to

influence face-to-face interactions with people who are known and trusted, but the internet and social media have introduced a new form of WOM, electronic (eWOM). eWOM allows people everywhere to communicate with each other even when they do not know each other. (Kotler et al. 2009, 125; Abrantes et al. 2013.) This communication and conversation could have strong influence on consumers' decisions, and often, eWOM credibility exceeds that of marketer-created information sources on the internet (Daugherty and Hoffman 2014; Gruen et al. 2006; Kotler et al. 2009, 125). Gruen et al. (2006) suggest that eWOM is perceived as a reliable source of information and has an impact on perceptions of the overall value of a company's offerings, which influences future purchase intentions and at the same time also affects loyalty (Gruen et al. 2006).

2.1.1   Related concepts

When defining social media, it is important to highlight other concepts and terms that resemble the social media concept. One term that is related to social media is Web 2.0. The two terms can be said to be interdependent, and they are often used together. As such, determining the differences between the two could be confusing or difficult. In some contexts, they are even used interchangeably. (Berthon et al. 2012; Kaplan and Haenlein 2010.)

The term Web 2.0 has been used to describe the new ways to use the World Wide Web compared with Web 1.0. Whereas in Web 1.0, information was created and published by individuals, for example on personal web pages, on Web 2.0, information is constantly being modified by users. Personal web pages have replaced with blogs, wikis and collaborative projects for which content can be modified and commented on by other users. (Kaplan and Haenlein 2010.) Barsky and Purdon (2006) summarized that whereas Web 1.0 was mainly about commerce, web 2.0 is about people.

Meanwhile, as Web 2.0 has moved activity from the desk to the internet, it has also affected the relationship between companies and consumers. Value creation has shifted from companies to consumers, and so has the power balance. (Berthon et al. 2012.)

So, what is the relationship between social media and web 2.0? It has been suggested that Web 2.0 is the platform that enabled the evolution and creation of social media. In their relationship, Web 2.0 can also be seen as an ideological and technological basis on which social media and its Internet-based applications are built. (Berthon et al. 2012; Kaplan and Haenlein 2010.)

Another important concept related to social media is user-generated content. Web 2.0 could be seen as the technological basis for the social media, but the user-generated content also includes how users are using social media. Content is created and exchanged in social media. (Kaplan and Haenlein 2010.) For companies, the content that users create is valuable because it engages consumers in the companies. User-created content also often has more credibility than companies' own content (especially reviews and ratings), and it

helps potential customers find companies online using search engines given that companies themselves may use different language from that of users. (Funk 2011, 79.) On the whole, users are no longer solely users; they are now also producers, generators and creators of content (Hinton and Hjorth 2013, 57), and this content has come to be an important information source for both, customers and companies (Yu et al. 2013).

2.1.2 Classification of social media

Social media can be divided and classified into different categories. Table 1 shows the classifications Kaplan and Haenlein (2010) used. They classified social media into six categories using two key elements, media research (social presence, media richness) and social processes (self-presentation, self-disclosure), and they offer a set of related theories.

The greater the social presence/media richness, the greater a user's influence on other users behavior, and, with increased self-presentation/self-disclosure, people are willing to reveal more about themselves to others. The categories formed by these elements are blogs, social networking sites, virtual social worlds, collaborative projects, content communities and virtual game worlds. (Kaplan and Haenlein 2010.)

TABLE 1: Classification of Social Media by social presence/media richness and self-presentation/self-disclosure (Kaplan and Haenlein 2010)

		Social presence / Media richness		
		Low	**Medium**	**High**
Self-presentation/ Self-disclosure	**High**	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

In collaborative projects, the content is created by many end users. Collaborative projects include, for example, wikis, which are websites that allow users to create, change and remove text-based content, and social bookmarking applications that allow users to collect and rate internet links and media content. (Kaplan and Haenlein 2010; Ryan and Jones 2009, 168.) The best-known collaborative project is most likely Wikipedia, an online encyclopedia that permits users to add, remove and change content (Ryan and Jones 2009, 168). Wikis can also be used within organizations for workers to share information and work together despite any distance (temporal, spatial) between the workers or the different parts of the organizations (Jue et al. 2010).

Blogs are one of the earliest forms of social media; they allow people to post and share anything that interests them in their own personal online forums. Although blogs are typically managed by one person or organization, blog interactions take place through comments that blog readers can write and share. (Kaplan and Haenlein 2010.) Organizations can benefit from blogs in two ways: by communicating themselves and by studying what others are saying about them (Sterne 2010). Blogs are generally chronological, and they can include text, graphics, videos and links to other blogs and web pages (Berthon et al. 2012). The most common blog style is still text based, but the possibilities for using different types of media are however increasing (Kaplan and Haenlein 2010). Because blogs are very easy to create and maintain, anyone can have one. The writers can vary from normal citizen to professional writers or, for example, celebrities. (Kietzman et al. 2011.) Blogs can also be used within organizations to reach employees, and share company views or can be used as learning tools (Jue et al. 2010). One form of blog that has gained a great deal of popularity in recent years is video blogs, also known as vlogs. Vlogs can be seen as extensions of text-based blogs on which, in addition to words, videos communicate information nonverbally. (Biel and Gatica-Perez 2013.)

One different form of blogging is micro-blogging, and the most popular micro-blogging site is Twitter. Twitter allows people to send and read short messages -- 140 characters or fewer -- from their profiles to anyone who follows the profile. (Berthon et al. 2012; Sterne 2010.) It is also possible to add links to other pages or to send direct messages to other users by inserting the user's name in a post (@username) (Funk 2011, 57).

Content communities allow people to share content with other users and let the users comment. Content communities include, for example, YouTube for sharing videos and Flickr for sharing photos. Considering the 100 million videos that YouTube offers per day, it is easy to see the broad accessibility of content communities. (Kaplan and Haenlein 2010.) YouTube is also used as a channel for publishing video blogs (Biel and Gatica-Perez 2013).

Social networking sites include, for example, Facebook, LinkedIn and MySpace. They are communities for communicating, connecting and networking online (Sterne 2010). Communication and information sharing have been revolutionized by social networking (Kotler et al. 2009, 125). On these sites, people can create profiles, share information about themselves including photos, videos, audio files and blogs, and ask friends to join or connect to their profiles (Kaplan and Haenlein 2010). Facebook is the largest and most popular social media channel at the moment (Funk 2011, 54; Bodnar and Cohen 2011, 127), allowing people to add and find friends and contacts and share content with them on users' personal profiles (Berthon et al. 2012). LinkedIn, however, is a business-networking tool that is more focused on professional networking (Kietzman et al. 2011). It is used for connecting with other professionals and with companies. On the consumer side, LinkedIn is not used to find customers (Funk 2011, 63), but on the business-to-business side, it can be used to acquire customers. (Bodnar and Cohen 2011, 97.)

Virtual game worlds let people interact with each other through online games; these are typically multiplayer games with strict rules, and players interact with each other as they would in real life. Another group of virtual worlds is virtual social worlds, which have less strict rules than those for game worlds. Additionally, in social worlds, the interactions are also similar to those in real life, and in fact, the entire virtual world can be compared with real life. The most popular virtual social world is Second Life, where users can do anything that is possible in real life, and they can also create content (e.g., virtual clothing or furniture) and sell it to other users. (Kaplan and Haenlein 2010; Kotler et al. 2009, 128.) Virtual worlds can also be used within organizations, for example, as learning environments; they can be a tool for learning and acquiring experience without risking negative impacts on sales or customer relationships. It is also possible to have global meetings in virtual worlds. (Jue et al. 2010.)

2.2   Social media and companies

For companies today, social media has become a more effective, lower-cost tool for communicating and engaging with customers than the more traditional channels (Kaplan and Haenlein 2010). Social media is also a tool for creating and maintaining customer relationships, and for this reason, it has also become an important tool for customer relationship management (CRM) (Trainor 2012).

Customers can no longer be viewed as simply the objects of marketing; they now have to be viewed as decision makers who have their own needs and the possibility to choose what and where they purchase. Just as the whole web has become the social web, customers have also become social customers who stand at the center of the business ecosystem. (Greenberg 2010.) These social customers also have social needs, and by filling these needs, companies can build long-lasting and meaningful customer relationships (Leary 2008). The concept of social customers greatly affects companies driving their need for social CRM (Greenberg 2010).

Social CRM is not replacing the traditional CRM but extending it (Leary 2008; Trainor 2012); it is a new way to improve customer relationships by combining traditional processes, systems, and technologies with social media technologies to make companies more customer-centric (Trainor 2012). Social CRM is based on web 2.0 technologies (Askool and Nakata 2011) and emphasizes the importance of the right content to interest people and stimulate conversation between companies and customers (Leary 2008).

Controlling social media is not an easy task because it changes rapidly (Kaplan and Haenlein 2010). Additionally, consumer behavior has changed; customers want to be listened to, engaged by and responded to by companies, not merely talked at. (Kietzman et al. 2011.) Trainor (2012) notes that today's

customers show a greater demand for an active role in business processes; they want to participate, interact and create value, and social media allows them to do so. (Trainor 2012).

One role of social media is to provide opportunities for companies to talk with their customers, and another role is allowing for customers to talk to each other. Social media can thus be seen as an extension of traditional word-of-mouth, except that instead of spreading word to a few friends, you can tell thousands of people. This sets social media apart from traditional media and makes it impossible for companies to control what is said about them in the forums. As a result, the power has shifted from companies to customers, and it is now greatly important for managers to realize the power of discussions on the internet. (Mangold and Faulds 2009.) The communication happens without permission; therefore companies cannot decide whether communication will occur or not (Kietzman et al. 2011). Therefore, it is a mistake to consider social media just another traditional marketing communication channel; it is much more than that, and, above all controlled by customers (Hoffman and Fodor 2010).

Hence, Mangold and Faulds (2009) suggest that social media should be considered a part of promotional mix when companies plan promotion strategies. Marketing strategy should include both traditional and social media, so that they both work together toward the same goal (Hanna et al. 2011). A comprehensive strategy for social media use also helps to avoid major social media error, whereas engaging without a strategy can lead to failure; companies may fail to benefit entirely from their efforts. (Wollan et al. 2010, 16.)

Another and in fact, extremely important role for social media in addition to allowing for communication with and between customers is allowing companies to listen to customers. Through social media, companies have the opportunity to learn what people are saying about their brands and about the companies themselves. (Ryan and Jones 2009, 152.) Social media gives a great opportunity for companies to discover what customers really think and how they act in their own environments, and gaining insight into customer behavior through social media is important because customers often act differently than they think they do; this is why it is not always possible to obtain accurate information solely from requesting and collecting feedback. (Wollan et al. 2010, 68.) At the same time, it is also possible for companies to investigate group social interactions and social influences (Schniederjans et al. 2013).

In addition to attracting customers, social media also allows companies to attract and retain the best employees. When the best candidates are attracted to working for a company and they have the opportunity to develop their skills and gain knowledge, they are very likely more productive and efficient at work, which leads to greater engagement and more positive results. (Jue et al. 2010.)

Because social media includes many different channels, it is highly important for companies to choose their communication channels carefully. For a company to use a particular social media channel, there has to be an identifiable benefit. (Kaplan and Haenlein 2010.) It is no longer sufficient to

release the campaign and let the consumers do the rest; active participation and rapid responses are needed. (Hoffman and Fodor 2010; Peters et al. 2013.) Therefore, if a company does not have a a great deal of time for social media engagement, it is that much more important for it to use the most effective channels for reaching its customers (Kaplan and Haenlein 2010).

On positive aspect, especially for small or new organizations, is that compared with traditional media, social media allows businesses to compete with larger or more established companies without requiring tremendous investments (Kaplan and Haenlein 2010). With the low costs and openness of the internet, every company can create internet content (Kotler et al. 2009, 121), a great advantage for small companies and for new companies to enter markets more easily and with less risk (Kaplan and Haenlein 2010).

Social media and the internet themselves do not provide a competitive advantage, but they offer the opportunity to create a competitive advantage, for example, by reducing costs such as transaction and customer search costs (Kotler et al. 2009, 121). Social media may also save costs related to customers' questions because they can answer to each others' questions in user forums without needing help desks (Hoffman and Fodor 2010). Internet and digital technology help to control the flows of material, information and finances, and it also allows for increased operational effectiveness. However, for companies to see a true competitive advantage, their social media communication must be more effective and better sustained than that of their competitors. (Kotler et al. 2009, 124.) Meanwhile, because the internet is everywhere, it also allows for communication with customers at any time. The internet enables more complete customer service, which reduces consumers' required time and effort to conduct transactions. (Kotler et al. 2009, 124; Schniederjans et al. 2013.) At the same time, perceived value and the possibility for closer long-term relationships increase as well (Kotler et al. 2009, 124). Another cost-saving effect of social media is the increased efficiency of marketing research; online forums enable conversations and data mining through multiple channels regarding for example, products and their features, which can replace expensive market research campaigns (Hoffman and Fodor 2010).

2.3   Measuring social media effectiveness

In social media, there is conversation about everything, including different companies, brands and industries. It is therefore essential for companies to know what is being said about their own organizations and industries and also to know what is being said about their competitors. Tracking the information in social media is easiest when companies are involved in the conversations and the social media channels are where their customers are. (Ryan and Jones 2009, 191.) In addition to measuring the overall success of social media activity, separate social media campaigns can also be measured. Different campaign

outcomes include, for example, numbers of registrations, subscriptions, comments, posts, leads or purchases and overall campaign awareness. However, achieving results from social media campaigns and activities takes time. (Sterne 2010, 164.)

The difficalty is that social media and social media ROI are often measured from the financial point of view and conventional media practices are transferred directly to social media, including attempts to measure effectiveness in the same way. (Fisher 2009; Hoffman and Fodor 2010; Peters et al. 2013.) This strategy is not sufficient in social media; because it is not solely about advertising, measuring only the ROI for paid social media advertisements (Fisher 2009) or only sales (Hoffman and Fodor, 2010) is insufficient. As such, social media should not only have the direct goal of increasing sales; rather, it should be observed and measured as a whole. (Fisher 2009; Hoffman and Fodor 2010.) Additionally using traditional measurement methods to determine social media's effectiveness leads only to short-term results and benefits and ignores long-term customer motivations. Therefore, investments cannot be measured solely in the short term; long-term returns must also be measured. (Hoffman and Fodor 2010.)

Social media generates a vast amount of data, such that it can be confusing to decide what to do with it and how to utilize it (Garner 2012, 331). Moreover, for different companies, it is important to measure different things. Nevertheless, the data and outcomes collected must be measureable if they are to be useful for companies. (Sterne 2010, 164.) Garner (2012, 342) presents a table (Table 2) that provides basic measurement metrics for Twitter, Facebook, YouTube, Google+ and blogs, divided into five dimensions: social graphs, posts, impressions, engagements and shares.

TABLE 2: KPIs of social media channels (Garner, 2012. 331)

	Twitter	Facebook	YouTube	Google+	Blogs
Social Graph	followers, unfollowers, follow: follower ratio	fans, unlikes, friends of fans	subscribers, unsubscribers	circles, circled, uncircled	subscribers
Posts	direct messages, tweets, retweets, @reply	posts, comments	uploads, comments	posts	posts, comments, responses
Impressions	accounts delivered to (reach), impressions (exposures)	impressions, page views, unique page views, organic reach, viral reach, total reach, photo views, external referrals	views, unique viewers, mobile, external YouTube views, referred views, viral views	views, photo views, video views	visitors, views
Engagements	favorites, clicks, user replies, retweets, direct messages	responses, comments, clicks, comment rate, video views, interactions, people talking about this	comments, likes, dislikes, favorites, popularity	comments, clicks, video views	comments, likes, views, likes/post
Shares	retweets, mentions	shares, likes, shares/post, shares/ impression, likes/post, likes/impression	embeds, shares, shares/view, shares/post, shares/ impression, likes/post, likes/ impression	+1s, shares, shares/ view, shares/ post, +1s/view, +1s/posts	shares, shares/ view, shares/ post

Social graphs include the numbers of followers, fans, subscribers, etc., and by analyzing these, a company can acquire information about building networks and increasing the reach for conversation and passive content

distribution. Posts are measured by the numbers of messages, posts, comments etc., and they tell about consumer engagement, content volume and also audience interest. Impressions include the number of times content is viewed and indicate overall reach. Engagement can be measured by numbers of different user actions, e.g., clicks, replies, comments, likes, on social media. It reveals how people react to content and whether it satisfies them. Additionally, shares reveal how well the content is resonating with consumers and can be measured by numbers of shares, retweets, etc. (Garner, 2012.)

In addition, audiences themselves can be estimated and valued. Sterne (2010, 52) divides audiences into four groups: subscribers and followers, readers, fans and repeaters. Followers and subscribers are people who have clicked "like" or "follow" button, but it cannot be determined whether they are active users or if they are finding information from companies, and therefore they are not valued particularly highly. Readers are also people who read the posts. They can be subscribers as well but they can also be people who read without subscribing. Readers are also not particularly highly valued, but people who both read and subscribe are valued more highly. The third group, fans, is already somewhat more valuable; in addition to subscribing, fans are interested in sharing with others the brands and persons they like. They can be subscribers or followers of different social media channels, RSS subscribers or simply people who regularly visit a website. The last and most valuable group is the repeaters, who in addition to following and subscribing to a message also repeat it. Repeating (spearing) at message expands the audience significantly because those who receive the message will also repeat it. (Sterne 2010, 52.)

Hoffman and Fodor (2010) suggest that rather than measuring return in sales or other financial figures, the attributes measured should be brand awareness, brand engagement and word of mouth. First, people must be aware of a company and its products, then they must be engaged, and then they will communicate their opinions to others. This will eventually lead to increased sales and greater return on investment (ROI). (Hoffman and Fodor, 2010.)

Table 3 shows how to measure brand awareness, brand engagement and word of mouth in social networks and video and photo sharing services. The measurements include numbers of members, application installations, impressions, bookmarks, reviews and ratings, and for video and photo sharing services, numbers of videos or photos and ratings valences. Brand engagement can be measured as numbers of comments, active users, "likes" on friends' feeds and user-generated items (photos, threads, replies) and also through metrics for the use of applications/widgets, impression-to-interaction ratios and activity rates. The strength of word of mouth can be measured by frequency of appearances on friends' timelines, numbers of posts on walls, numbers of reposts/shares and responses to friends' referral invites. Naturally, there is also a tremendous amount of private word of mouth communication that cannot be measured directly. (Hoffman and Fodor, 2010.)

TABLE 3: Measuring brand awareness, engagement and word of mouth in social media (Hoffman and Fodor, 2010)

	Brand awareness	Brand engagement	Word of mouth
Social Networks (e.g., Bebo, Facebook, LinkedIn)	•number of members/fans •number of installs of applications •number of impressions •number of bookmarks • number of reviews/ratings and valence +/−	•number of comments •number of active users •number of "likes" on friends' feeds • number of user-generated items (photos, threads, replies) • usage metrics for applications/ widgets •impressions-to-interactions ratio • rate of activity (how often members personalize profiles, bios, links, etc.)	• frequency of appearances on timelines of friends •number of posts on wall •number of reposts/shares • number of responses to friends' referral invites
Video and Photosharing (e.g., Flickr, YouTube)	•number of views of videos/photos •valence of video/photo ratings +/−	•number of replies •number of page views •number of comments •number of subscribers	•number of embeddings •number of incoming links • number of references in mock-ups or derived work • number of times republished in other social media and offline •number of "likes"

2.4   Firm performance and social media

Social media provides information about companies in many ways. Using companies' social media performance, it is possible to evaluate their status and acquire information that could be useful, for example in investment decisions, when other data are not available. The data offered on social media are also

always the most recent, and they are available at any time, as opposed to, for example, monthly or quarterly as with other information sources. (Luo et al. 2013.)

Many companies are interested in learning how to benefit financially from social media. To justify any financial investments, it is essential to know the financial value of social media. (Luo et al. 2013; Gilfoil and Jobs 2012.) Social media use has expanded exponentially among both consumers and corporations, but still only a small portion of advertising budgets is allocated to social media. One reason for this is that measuring the value of social media marketing investments is fairly difficult. (Gilfoil and Jobs 2012.) Despite this difficulty many researchers have attempted to measure the return on investment (ROI) of social media. Customers' value, however does not lie solely in the amounts they themselves spend; customers also influence other people's opinions by spreading their thoughts through social media, greatly increasing their value to companies. (Fisher 2009.)

Measuring and calculating social media ROI often begins with measuring its costs and attempting to determine the returns in sales. On social media, however this is not adequate. Instead, companies should consider the marketing objectives they aim to fulfill through social media activity, such as, for example, brand engagement or sharing information about new products with consumers; this means that returns are not always financial. (Hoffman and Fodor, 2010.)

Multiple studies have nevertheless examined the relationship between social media and financial figures (Luo et al. 2013; Schniederjans et al. 2013; Trainor 2012; Yu et al 2013).

Luo et al (2013) suggest that social media has strong predictive power for firms' future equity value. In their study, they examined whether social media had a significant predictive relationship with firm equity value and if social media metrics were relatively stronger indicators of firm equity value compared with conventional online consumer behavior metrics. Additionally, they examined the dynamics of the relationship between social media and firm equity value. (Luo et al. 2013.)

Their results suggest that social media can be a leading indicator of firm equity value and that, therefore, social media investments should not be treated as net costs. They also found that social media has stronger predictive value than conventional online consumer behavior metrics, and, furthermore, their research suggests that through positive blog posts, consumers' trust and advocacy can be increased, leading to higher firm value. Naturally, negative blog posts can harm and damage reputation and thereby lead to lower firm performance. (Luo et al. 2013.)

Schniederjans et al. (2013) studied the relationship between firm performance and social media from the perspective of impression management, that is, managing the impressions of customers and other stakeholders about the company. The authors suggest in their study that there is a partial positive connection between social media use and financial performance depending on

impression management strategy. Some strategies have a significant relationship with financial performance and others do not. Altogether, when appropriate impression management strategies are used on social media, companies can improve their financial performance. (Schniederjans et al. 2013.)

In addition, Yu et al. (2013) found that social media has a stronger impact on firm stock performance than that of conventional media. Moreover, their results suggest that different types of social media have different impacts, and thus, it is important for companies to identify the right combination of media outlets when creating their social media marketing strategies. (Yu et al. 2013.) Additionally, compared with other media, social media's effects are much more rapid, and the effects and harm from negative opinions and ideas spread more rapidly than the effects and benefits from positive opinions and ideas. As a result, negative publicity in social media can have a particularly rapid effect on firm performance. (Luo et al. 2013.)

As was observed above the returns on social media investments are not always financial, and thus, their effect on company performance is not generally straightforward. However, these returns can indirectly affect financial performance. (Hoffman and Fodor, 2010.) Social media has led to customers' being more willing to participate in companies' activities, which may also increase their commitment to companies. It is suggested that customers' greater involvement with and commitment to the companies increase their satisfaction and loyalty (Trainor 2012), which in earlier studies was revealed to have a positive impact on firm equity value (Anderson et al. 2004, Luo et al. 2010).

Anderson et al. (2004) highlight that customer satisfaction leads to larger purchases, decreasing transaction costs and increasing revenue. Customer satisfaction may also increase the amount of cross-buying, which leads to greater cash flows and share of wallet. Furthermore, customer satisfaction increases positive word of mouth, which again leads to greater cash flows and also may allow for charging higher prices. (Anderson et al. 2004.) Anderson et al. (2004) also suggest that customer satisfaction and satisfied customer base gives companies a competitive advantage, so that they have greater bargaining power with suppliers, partners and channels.

Sterne (2010) also suggests an idea about the indirect effect of social media on firm performance. Specifically, he suggests that companies cannot earn profits without income, earn income without customers, acquire customers without prospective customers, acquire prospects without suspects or identify suspects without awareness and the awareness. As such, awareness is a true social media gain, and it has an indirect effect on the relationship between social media and firm performance. (Sterne 2010.)

As this chapter highlights, many earlier studies support the idea that social media has an indirect effect on firm performance (Anderson et al. 2004; Luo et al. 2010; Hoffman and Fodor, 2010; Schniederjans et al. 2013; Sterne 2010). Based on this, the following proposition is made:

P1: *Activity on social media has a positive relationship with firm performance.*

3   CORPORATE REPUTATION

3.1   The concept of corporate reputation

Corporate reputation has been defined in the literature in numerous ways. Walker (2010) defined it based on the most cited definitions, as follows:

> "A relatively stable, issue specific aggregate perceptual representation of a company's past actions and future prospects compared against some standard."#

Williams et al. (2005), however, summarized that corporate reputation describes how stakeholders perceive and respond to companies. Walsh and Beatty (2007) define reputation as perceived by customers as being based on customer reactions to a company's goods, services, and communication activities and their interactions with the company and its representatives or constituencies (employees, management, other customers). Therefore, company reputation is not merely passive and unidirectional from company to consumer. Rather, it is formed by consumers' perceptions, beliefs and preconceptions. (Bunting and Lipski 2000.) Perceptions and beliefs are not always congruent with reality, but despite that, consumers' perceptions are their reality, as such, whar matters to the company. (Rayner 2003, 1).

Nevertheless, because stakeholders are not a single homogenous group, companies do not necessarily have just one reputation; reputations may vary depending on stakeholder perspective. For example, customers will view a company differently than, say, the company's suppliers. (Honey 2009, 3.) In addition, different members of the same stakeholder group (e.g., customers, suppliers) may perceive different reputations for the same company given that people have different backgrounds and ways of viewing the world. (Fombrun 1996.) Different people will also view a company and its reputation differently depending on, for example, their overall knowledge of the company. Moreover, different areas within the same company may have different reputations, e.g., product quality may be considered excellent but the company's treatment of

employees is horrible. Regardless, a company's overall reputation derives from these individual reputations. (Fombrun 1996).

A strong corporate reputation gives a competitive advantage and is very difficult for others to imitate (Hall 1993). The more a company distinguishes itself from its competitors, the stronger its reputation and also the greater its reputational capital (Fombrun 1996, 392). Hence, reputation can be seen as a company's intangible and strategic asset (Eberl and Schwaiger 2005; Fombrun 1996, 80) and is sometimes even seen as a company's most valuable asset. It is developed over years through people's perceptions and therefore, it cannot be bought. It can, however, be damaged and ruined in an instant. (Alsop 2004, 10; Hall 1993.) The challenge for companies is that a damaged reputation is extremely difficult to repair (Firestein 2006); facing crises and losing reputation generally means losing market value (Fombrun 1996, 93). Therefore, strategic planning is crucial (Croft and Dalton 2003. 152).

Managing the reputation is not, however, a simple task. Each contact a stakeholder makes with a company begins to establish the company's reputation in the stakeholder's mind, which means that reputation develops constantly regardless of a company's actions. (Hannington 2004, 18.) Because reputations are constantly in development, it is crucial that each employee realizes his or her effect on company reputation at all. It is therefore important to motivate employees to act in the company's best interests, promoting it and presenting a positive image. (Hall 1993.) Honey (2009) sees a good reputation as a result of good management and strategic decisions; that is, when the entire management structure works well, a good reputation generally follows (Honey 2009, 6).

3.1.1   Related terms

Two terms that are often connected with reputation and that are also frequently confused are corporate image and corporate identity, both of which are distinct from reputation. Corporate image may be viewed as the image the company wants its stakeholders to have; firms attempt to manipulate their images so that stakeholders will see them as they wish to be seen. (Walker 2010.) However, image cannot be completely controlled by companies because of the innumerable external influences (such as media coverage or government regulations), although companies can shape their images (Barnett et al. 2006).

Corporate image can change in relatively short periods of time depending stakeholders' current opinions of the company, but corporate reputation takes time to develop and is based on long-term assessments of the company (Croft and Dalton 2003, 9; Walker 2010). Nevertheless, both image and reputation can be damaged very easily during crises (Chun 2005). Croft and Dalton (2003, 12) see reputation as being somewhat more stable than image, and they thus argue that even if a corporate image is damaged for some months, overall reputation can remain positive over the long term.

Corporate identity, however, describes how internal stakeholders, such as employees, perceive the company; hence, identity can be seen as the company's core features from the employee perspective. (Walker 2010.) Because identity is based on employee perceptions and image and reputation are based on outside stakeholder perceptions, identity can remain stable even when image or reputation has been damaged (Barnett et al. 2006).

In comparing corporate reputation with corporate identity and image, Croft and Dalton (2003, 9) suggest that reputation must be earned, not created. Company reputation refers to stakeholders' actual perceptions and what they truly know about the company, whereas image can include mental images (Walker 2010).

Chun (2005) divides identity into two components: identity and desired identity; identity describes the company as it is, and desired identity expresses what the company wants to be and what it says it is. At times in the literature, these components are also referred to as organizational identity and corporate identity, where organizational identity describes how the internal stakeholders perceive the company and corporate identity relates to how companies wants to see themselves. (Chun 2005.)

Figure 2 shows the relationship between identity, desired identity and image. These elements, however, are not always identical; there could be gaps between them when different people perceive the company in different ways (Chun 2005). If the perception gaps are large, for example, expectations far exceed the reality, there is a risk that reputation will be damaged (Chun 2005; Eccles et al. 2007).
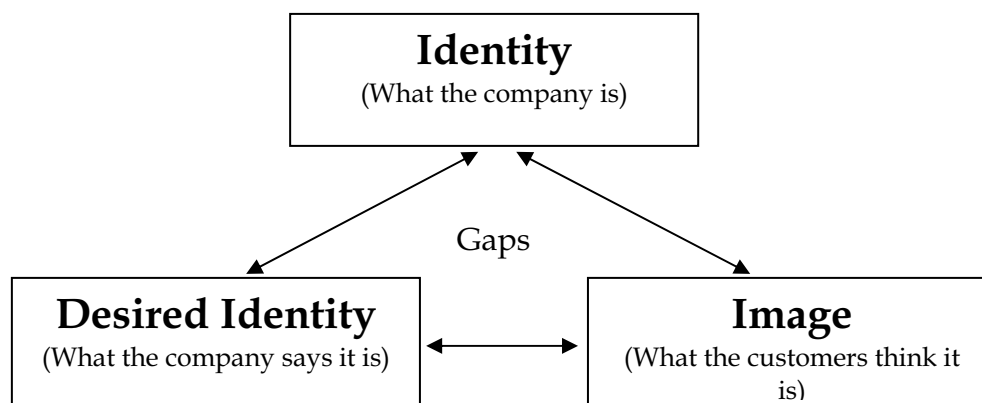
FIGURE 2: The key elements of corporate reputation (Chun 2005)

The term brand can also surface in discussions of reputation. Brand and reputation, however, are different terms with different meaning. Brands are created and managed by their owners to bring value to the company, whereas reputations are held by others and develop irrespective of the company itself. (Honey 2009, 2.) In small, simple organizations, the corporate reputation and brand can be similar and have the same features, but in large companies, in

particular, those that manufacture a wide variety different products, there is a marked difference between brand and corporate reputation. These companies generally have many different brands, but the overall corporate reputation is attached to the whole company. (Rayner 2003, 10.)

3.1.2   Impacts of corporate reputation

Reputation has an impact on many aspects of companies. Earlier studies indicate a relationship between corporate reputation and customer loyalty; favorable corporate reputation increases customer loyalty and helps to create and maintain loyal customer relationships. (Andreassen and Lindestad 1998; Keh and Xie 2009; Walsh and Beatty 2007.) Strong relationships between customers and the companies increase identification with the companies, also increasing consumers' purchase intentions for that company. If consumers have a positive image of a company, that same positive image generally transfers to the company's products. Therefore, a company's good reputation can be seen to affect the attractiveness of its products and, hence, its sales. (Fombrun and Van Riel 2003, 8.)

Corporate reputation has also been shown to have a positive impact on employee commitment and job satisfaction (Alniacik et al. 2011; Fombrun and Van Riel 2003, 9; Helm 2011). First, a good reputation helps to increase awareness of the company and attract the best applicants for available positions. Second, a good reputation helps to retain these employees and encourages them to commit to the company's values, beliefs, missions and objectives. This commitment motivates employees to work, which leads to efficiency and productivity. (Fombrun and Van Riel 2003, 12.)

Furthermore, reputation helps to reduce transaction costs (Walsh and Beatty 2007) and may also be seen as influencing investment decisions and media coverage, including how the company is perceived publicly. (Fombrun and Van Riel 2003, 13).

Additionally, many studies have proposed a relationship between reputation and firm performance (Eberl and Schwaiger 2005; Carmeli and Tishler 2005). Reputation and financial performance are related in many ways. Fombrun and Van Riel (2003) suggest that reputation affects operating performance and market value through different influences. Figure 3 illustrates these effects and the related phases. A good reputation and good relationships with stakeholders can lead to lower input prices and capital costs, which leads to the possibility of charging more profitable prices. This pricing strategy can encourage financial analysts to rate a company favorably, increasing the demand for the company's shares and thus its market value. (Fombrun and Van Riel 2003, 27.)

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┌─────────────────────┐
│     Reputation      │
└──┬──────────────────┘
   │  ┌──────────────────────────┐
   └─→│  Premium Product Prices   │
      │    Lower Input Costs      │
      └──┬────────────────────────┘
         │  ┌──────────────────────┐
         └─→│    Higher Profits     │
            │   Better Prospects    │
            └──┬────────────────────┘
               │  ┌────────────────────┐
               └─→│   Excess Demand    │
                  │ for Company's Shares│
                  └──┬──────────────────┘
                     │  ┌──────────────────┐
                     └─→│ Higher Market Value│
                        └──────────────────┘
```
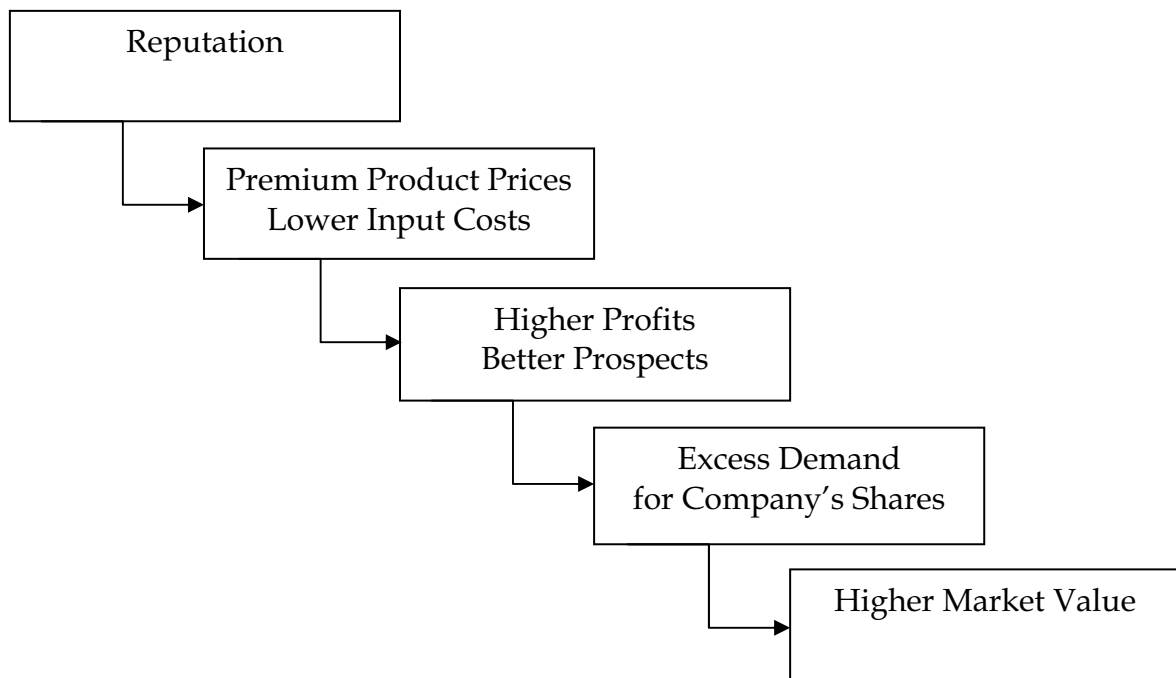
FIGURE 3: Reputation's influence on operating performance (Fombrun and Van Riel 2003, 27)

Additionally, a good reputation can also reduce a company's operating costs. Companies have more negotiation power when their reputations among their stakeholders are positive, leading to better contracts with less effort. (Fombrun 1996, 75.)

Fombrun and Van Riel (2003) also present the idea of the value cycle, in which financial value and stakeholder support affect each other. A good reputation increases stakeholders' endorsements, which increases the company's value. As a result, companies can spend more on activities that stakeholders support and add financial value, which in turn leads to a better reputation and increased stakeholder value. Of course, this cycle also works in the opposite direction: when one sector does not work, there is a negative effect on other sectors. (Fombrun and Van Riel 2003, 29.)

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        ┌─────────────────────────┐
        │  Revenues, Profits &    │
        │  Assessment             │
        │  of future prospects    │
        └─────────────────────────┘
┌──────────────┐  ┌──────────────┐  ┌──────────────┐
│ Supportive   │  │ Corporate    │  │ Shareholder  │
│ Stakeholders │  │ Reputation   │  │ Value        │
│ & Endorsements│ │              │  │              │
└──────────────┘  └──────────────┘  └──────────────┘
        ┌─────────────────────────┐
        │ Corporate Initiatives,  │
        │ Citizenship &           │
        │ Communications          │
        └─────────────────────────┘
```
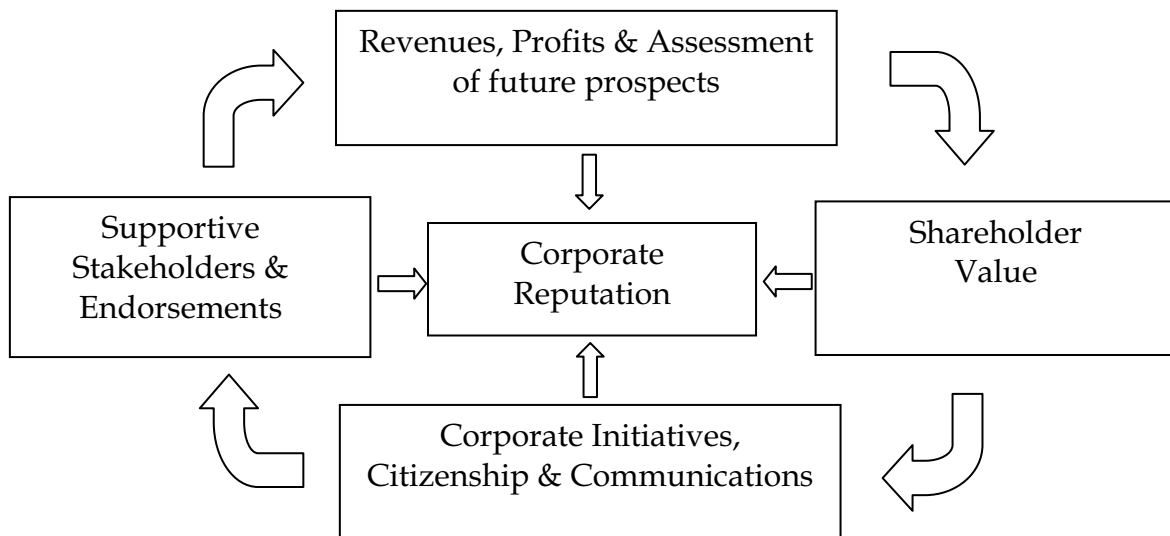
FIGURE 4: The reputation value cycle (Fombrun and Van Riel 2003, 29)

All of the impacts of good reputation lead to the same advantage: a good reputation is a strategic asset that leads to long-term returns. Ultimately, it is a competitive advantage that rivals will find difficult to replicate. (Fombrun 1996, 80.)

3.2 Reputation and social media

In traditional media, corporate reputation was seen as an interaction between a company's communications and stakeholders' reactions. Thus, when companies communicated, for example, through their marketing channels, their reputations depended on how stakeholders perceived the message and how they reacted. (Bunting and Lipski 2000.) Internet and social media have, however, somewhat modified this dynamic. In the era of social media, it is not sufficient to just communicate a message to consumers; rather companies must now engage consumers in conversation via social media. (Jones et al. 2010.)

The internet itself has not changed how people react to or perceive companies' communications, but it has helped people to see more and also to react and interact more noticeably and effectively with other people. Therefore, the internet has caused something of a shift in the dominance of reputation from companies to people. (Bunting and Lipski 2000.) Companies have lost their dominance in controlling discussions about themselves, which makes it more difficult for them to influence their reputations (Aula 2010). A company's communicative actions are no longer the sole influences on its reputation; all online communication, such as between the stakeholders, now has an impact. Consumers are happy to use the opportunity to communicate with each other to share information about companies, solicit opinions and influence others'

opinions. Consumers have shifted from passivity to activity, and this has also brought to light a new type of professionalized consumer who actively participates in social media conversations and shares opinions with ease. (Jones et al. 2010.)

Social media has highlighted these customers' needs to be active, but at the same time, it is also the tool companies use to respond to these needs. Customers want to participate, interact and create value themselves, and social media allows companies to support this customer participation and interaction. This participation leads to higher involvement with and commitment to the company, which has been suggested to increase customer satisfaction (Trainor 2012) which, again, has been demonstrated in earlier research to lead to better corporate reputations (Carmeli and Tishler 2005). Therefore, it can be proposed that there is a positive relationship between social media and corporate reputation. Based on this, the following proposition is made:

P2: *There is a positive relationship between social media and corporate reputation.*

Although consumers have great power in social media, companies do have some control over the rules and frameworks for how they and their brands participate in social media. They can, for example, decide who posts and what is posted in their name on their own social media channels. Additionally, companies also have a degree of control over the frameworks through which consumers are engage with them and their brands on companies' own social media channels. Companies can choose the types of campaigns they will roll out, and these determine how consumers will participate and interact. (Hoffman and Fodor 2010.)

To manage reputation in social media, it is important to observe what is happening in different channels. However, the changing world with its new channels and devices creates a great challenge for companies in terms of measuring and evaluating different marketing actions in different forums. (Pfeiffer et al. 2010.)

3.2.1   Reputational risk

At the same time that the dominance has shifted from companies to consumers, reputational risk has also increased. As such, the discussions of social media and corporate reputation in the literature concentrate mostly on social media's risks bring to reputations. Jones et al. (2010) suggest that a positive online reputation can strengthen corporate image, differentiate a brand from its competitors and increase value and competitive advantage.

Naturally, losing reputation influences in reverse; that is, it weakens competitiveness, decreases brand value and corporate image and also negatively affects relationships with the stakeholders and the media (Rayner 2003; Aula 2010). Reputational risk is generally threatens business operations and a company's market value. Additionally, reputation loss can affect not only

the company but the whole industry. (Aula 2010.) Therefore, it is important to recognize the issues that most affect reputation and also to identify the greatest threats to that reputation (Rayner 2003).

Eccles et al. (2007) highlight three factors that determine reputational risks. The first is a reputation-reality gap. A company's reputation develops from the perceptions of different stakeholders in different categories of that company. If these perceptions differ greatly from reality, the gap between the two leads to reputational risk. A second factor is changing beliefs and expectations, which refers to the risks when stakeholders' expectations and beliefs change but the company remains the same; this expands the gap between reality and reputation. A third factor is weak internal coordination. If on section of the company cannot fulfill the expectations for a different section, reputation is threatened. (Eccles et al. 2007.)

Additionally the importance of a company's activities on the internet has increased significantly because of social media (Jones et al. 2010). Thus, reputational risk can also be caused by organizations' own actions, for example, their responses to issues that arise in social media or their manipulating information in forums such as wikis and blogs (Aula 2010). Hence, it is important to ensure that everyone in the organization is committed to protecting and maintaining a company's positive reputation. (Rayner 2003). A poorer reputation leads to decreased market value, and thus, maintaining a reputation is also important financially (Fombrun 1996, 93).

3.2.2   Managing reputational risk

Because company's reputation is an essential asset and it can be easily damaged, it is important to manage risks to that reputation (Rayner 2003). In reputation management, it is necessary to act and react quickly to threats. Social media moves quickly, so also rumors and negative conversations will spread rapidly. Ignoring negative posts or other threats is not the solution because these problems do not typically resolve themselves on their own. Instead, it is crucial to respond quickly to attempt to repair any damage. Reactions should be positive and honest, and rather than attacking or taking other aggressive actions, the company should communicate calmly and professionally. (Ryan and Jones 2009, 194.)

However, easier than repairing a damaged reputation, is avoiding negative online publicity in the first place. Therefore, risks must be managed preemptively. Operations should be transparent, and customer correspondences should be addressed quickly and effectively. Participating in online communities and gaining the audience's trust is also an effective way to minimize the risk of negative publicity. (Ryan and Jones 2009, 194.)

Eccles et al. (2007) suggest five steps in managing reputational risk: assessing reputation among stakeholders; evaluating the company's reality; closing reputational gaps; monitoring changing beliefs and expectations; and making one person responsible.

The first, assessing reputation, entails a company's measuring and analyzing its reputation in different areas (Eccles et al. 2007). Jones et al. (2007) also highlight the importance of measuring and managing social media activities and their impacts to successfully manage reputation. The difficulty, however, is that reputation cannot be measured with, for example, numerical data, such as those that pertain to the company's financial status (Rayner 2003, 2). Evaluating and measuring online discussions manually is virtually impossible because of the vast amount of data. Fortunately, software and tools have been developed to monitor and measure online reputation and buzz on the internet, and companies can take advantage of these tools. (Jones et al. 2010.)

The second step, evaluating the company's reality, is important because executives may evaluate a company's reputation as being better than it is in reality. Senior executives may have optimistic views of the company, which can lead to differences between the reality and their perceptions. (Eccles et al. 2007; Rayner 2003.)

The third step, closing reputational gaps, should attempt to reduce existing gaps between reality and reputation, which can be accomplished by improving a company's own capabilities, behavior and performance or, alternatively, by moderating perceptions. (Eccles et al. 2007.)

The fourth step, monitoring changing beliefs and expectations, is important because these do not remain stable. It is important to pay attention to changing expectations and react quickly before any gap between reality and reputation widens, risking the company's reputation. (Eccles et al. 2007; Rayner 2003.) Additionally, to maintain a narrow gap between the two, it is important for companies to show stakeholders that they are what they claim to be. (Rayner 2003).

The fifth step, making one person responsible, is important because without a responsible party, none of the other steps are possible. This person should report to the senior management on the main reputational risks and how they are being managed. (Eccles et al. 2007.) It is also critical for senior management to be committed to risk management. If higher-ups are not committed, others in the organization will also not be committed. (Rayner 2003.) Senior managers may have overly optimistic views of the company, and thus, it is important to emphasize for them the real threat of reputational risks (Eccles et al. 2007; Rayner 2003).

Aula (2010) suggests that companies should have an ambient publicity strategy for enchaining and managing their reputations. He suggests four different strategies for ambient publicity, which refers to social media publicity. The first strategy is absence, that is, making the strategic decision not to proactively engage in conversation or create content about the company in social media. The second strategy is presence, that is, the company is present on social media, but that presence is based on conventional public relations, through which specific channels are used to communicate specific groups of people; through mere presence communication is not interactive. The third strategy is attendance, whereby companies are encouraged both to participate

in social media conversations as listeners and to collect information about things that matter for the company and the industry. The fourth strategy is omnipresence, which is the most participatory. Through omnipresence, companies are deeply involved in social media, with diverse and proactive interactions with different stakeholders in different forums. Omnipresence is the most effective method for reacting to reputational risks because these can arise anywhere in social media. (Aula 2010.)

4   METHODOLOGY

This chapter outlines the methodology applied in this study. First, the methods used for this research are presented, and the nature of the quantitative research method is explained. Subsequently, the methods of data collection and analysis are discussed.

4.1   Research methods

The aim of this study is to research the relationship between social media activity and corporate reputation, company size and firm performance. The type of research conducted here is quantitative.

In quantitative research, theories and deductions drawn from previous studies are essential. Data must be suitable for numeric, quantitative measurements, and quantitative research uses statistical analysis for processing the data and drawing conclusions. (Hirsjärvi et. al. 2009, 140.) Quantitative research takes a deductive approach to the relationship between theory and research and typically aims to test theories. (Bryman and Bell 2011, 27.)

Underlying quantitative studies is the idea that reality is built from objective facts. This thought was born from the idea that all information emerges from straightforward perceptions and logical deduction based on these perceptions. (Hirsjärvi et. al. 2009, 139.) Therefore, quantitative research begins with elaborating on a theory and, commonly, deducing a hypothesis from that theory (Bryman and Bell 2011, 151).

4.2 Data collection and analysis

The data on social media activity were collected from companies' social media channels in March and April 2014. The channels selected for this research were Facebook, Twitter, LinkedIn and YouTube, which were chosen because they apper to be the most popular social media channels that companies are currently using. Because the research was quantitative, the data had to be numeric, and it had to be possible to measure the data quantitatively (Hirsjärvi et al. 2009). Table 4 shows the data collected from each channel.

TABLE 4: The data collected from social media channels

Facebook	- Likes - Talks - Activity
Twitter	- Followers - Tweets - Activity
LinkedIn	- Followers - Activity
YouTube	- Subscribes - Views - Number of videos

The data collected from Facebook pages included number of likes and talks and the amount of activity. Numbers of likes and talks do not take into account how long a company has been on Facebook and as such, the numbers are not directly comparable; companies that have been participating for longer have had more time to collect likes and talks. Activity, however, is comparable in that it was assessed based on the numbers of posts company has posted on their Facebook page during the year 2013. Activity is classified along a scale from 1 to 6, where 1 is "No Facebook page" and 6 is "More than 500 posts per year". The remaining classifications and their values can be seen in table 5. Some companies did not have a Facebook profile for the entirety of 2013. For these companies, numbers of posts were calculated by dividing the numbers of posts by the numbers of months that the companies were on Facebook during 2013 and multiplying that by 12 to obtain a whole-year average.

The data collected from Twitter were the numbers of followers and tweets and the amount of activity. Number of tweets refers to the total number of tweets posted during a company's entire time on Twitter, and thus, it does not take into account how long the company has been active on Twitter. As a result, number of tweets is not directly comparable; some companies might have been active on Twitter for years and some for only few months. Activity, however, is

comparable because it is based on a company's estimated average number of tweets per day during the year 2013. Activity is classified using a scale from 1 to 6 where 1 is "No Twitter account" and 6 is "Many tweets a day". The other classifications and values for numbers of tweets can be seen in table 5.

The data collected from LinkedIn were number of followers and activity, which was based on the estimated average numbers of posts per month during the year 2013. Activity is classified using a scale from 1 to 6 where 1 is "No LinkedIn profile" and 6 "More than 15 posts per month". The remaining classifications and LinkedIn activity values can be seen in table 5. Additionally, number of followers does not take into account how long companies have been on LinkedIn, and some companies have had a more time to collect followers.

The data from YouTube were total numbers of subscribes, views and videos on companies' own YouTube channels. These data also do not take into account how long companies have been on YouTube. Therefore, the values are not directly comparable; some companies had been active for longer.

TABLE 5: Classifications of data

Activity on Facebook

No Facebook page	1
Facebook page but no activity	2
Fewer than 50 posts per year	3
50-100 posts per year	4
100-500 posts per year	5
More than 500 posts a year	6

Number of likes on posts

No Facebook page	1
Fewer than 10 likes /post	2
10-50 likes /post	3
50-100 likes /post	4
100-1000 likes /post	5
More than 1000 likes /post	6

Activity on Twitter

No Twitter account	1
An account but no tweets	2
Less often than every other day	3
Max once per day	4
1-2 tweets per day	5
Many tweets per day	6

Activity on LinkedIn

No LinkedIn profile	1
Profile but no activity	2
Profile but no regular activity	3
1-5 posts per month	4
5-15 posts per month	5
More than 15 posts per month	6

The corporate reputation data were collected from secondary sources, which means they had been originally collected and compiled for another purpose (Krishnaswami and Satyaprasad 2010). These data are based on the survey about the reputations and responsibilities of Finnish companies that was conducted by TNS Gallup. The survey was implemented as a web survey in autumn 2013; it had 9802 respondents from different ages, genders and regions in Finland and encompassed the full active adult population. Each company had 100-500 respondent evaluations of their reputations, depending on how well-known the companies were among the respondents. Each respondent

evaluated a company if he or she had indicated knowing the company well enough to offer a general evaluation, and each respondent evaluated four companies at most.

The survey included 59 companies that operate in Finland. These same 59 companies were chosen for this research in order to have comparable data about reputation. The companies came from seven different industries: food, retail, service, finance, energy, industry and ICT. The survey was administered on the TNS Gallup Panel as a CAWI (Computer-assisted web interview). Data collection and processing were executed following SFS-ISO 20252 (Market, opinion and social research) and SFS-ISO 26362 (Access panels) standards.

The reputation index covers different dimensions, and the research questions evaluated perceptions in five different fields: overall evaluation of reputation, impressions of the company, trust, financial success and quality of products and services. These were divided into three dimensions so that the questions that evaluated overall reputation explained the company's overall reputation; impressions about the company and trust explained the relationship and the emotional attraction; and financial success and quality of products and services explained competence and the rational attraction. The dimensions can be seen in Figure 5.

Reputation index questions   **Dimensions**

	Reputation index questions	Dimensions
1	Overall evaluation of reputation	Overall reputation
2	Impressions about the company (sympathy)	Relationship Emotional attraction
3	Trust	
4	(Financial) success	Competence Rational attraction
5	Quality of products and services	

FIGURE 5: The dimensions of the reputation index

The data for firm performance and size also came from secondary sources; they were collected from companies' annual reports. The data are company revenues, profits and number of employees during financial year 2013. If the 2013 financial data were not available, 2012 data were used. Net profit reflects

the firm performance of the companies and the net revenue and number of employees are used to indicate a company's size.

The data were entered into IBM SPSS version 22 program, and dependencies between the different factors were examined through correlation analysis. B2B and B2C companies were compared using independent samples T-test and different industries were compared using the Kruskal-Wallis test.

5   RESULTS

In this chapter, the study results are presented. First, the data are summarized and explained more precisely. Next, the correlation analysis results are presented.

5.1 Summary of the data

The results of this research are based on the data collected from the social media channels of 59 companies that were operating in Finland. The companies were from seven industries: food, retail, service, finance, energy, industry and information and communications technology (ICT). The most companies were in Food and Industry, with 13 (22.0 %) in each. The second largest group was Energy with 9 companies (15.3 %), followed by Finance with 8 companies (13.6 %) and Service and Retail with 6 companies (10.2 %) each. The smallest group was ICT, with 4 companies (6.8 %). (See table 6.)

TABLE 6: Frequency table for industries

	N	%
Food	13	22.0
Retail	6	10.2
Service	6	10.2
Finance	8	13.6
Energy	9	15.3
Industry	13	22.0
ICT	4	6.8
Total	59	100.0

Most of the companies were business-to-consumer (B2C) companies; the number of B2C companies was 44 (74.6 %) and that of business-to-business (B2B) companies was 15 (25.4 %).

The channels used in this research were Facebook, Twitter, LinkedIn and YouTube. The number of companies with accounts on these social media channels can be seen in table 7. The most popular social media channel among the companies was LinkedIn. 57 (96.6 %) companies had a LinkedIn profile, meaning that only two of the 59 did not; these two companies were from energy and retail. The second most popular was YouTube; 49 (83.1 %) companies had YouTube channel. Those that did not were mostly in food, retail and energy. In the ICT and service sectors, all companies had a YouTube channel, and in industry and finance, all but one company had a channel. 45 (76.3 %) companies had Facebook pages and 43 (72.9 %) had Twitter accounts. With Facebook the most active sectors were also ICT and service; again, all companies in these sectors had Facebook pages, and most of the companies that did not have were in industry, energy and food. For Twitter, retail was the most inactive sector; only one retail company had an account. Other companies that did not have Twitter accounts were mostly in energy and food.

The most active industries were ICT and service. All ICT companies had all four accounts (Facebook, Twitter, LinkedIn and YouTube). In the service sector as well, nearly all companies had accounts on all four channels; two companies did not have Twitter accounts. The most inactive sectors were energy and retail; 33 percent of companies did not have Facebook, Twitter and YouTube accounts, and in retail, 83 percent of companies had no Twitter account. In both sectors, one company did not have a LinkedIn account.

TABLE 7: Number of companies with social media accounts by channel

	Have an account	% of total
Facebook	45	76.3
Twitter	43	72.9
LinkedIn	57	96.6
YouTube	49	83.1

Most of the numeric data were not classified but were used as straight ratio. Activity in the different channels, however, was classified as presented in the previous chapter. On Facebook, the majority of companies (49.2 %) posted 50-100 posts during 2013. Each company with a Facebook profile had at least some type of activity, and only two companies (3.4 %) had fewer than 50 posts during the year; these companies were from energy and ICT. 14 companies (23.7 %) did not have a Facebook profile at all, and, as was mentioned earlier, these companies were from industry, energy and food. 11 companies (18.6 %) posted 100-500 posts during 2013 and 3 companies posted (5.1 %) more than 500 posts. These highly active companies were from service, industry and ICT.

For Twitter, the largest group, 18 companies (30.5 %), had not account at all. However, the second largest group, 15 companies (25.4 %), tweeted many times a day. Two companies (3.4 %) had accounts but no activity and 6 companies (10.2 %) tweeted less frequently than every other day. 13 companies (22.0 %) tweeted a maximum of once per day and 5 companies (8.5 %) did so one or two times a day. The most inactive sector was retail, but the group of most active companies included companies from all other sectors. Additionally, other activities were separated fairly evenly between different sectors.

On LinkedIn, the largest group, 19 companies (32.2 %), posted 1-5 posts per month. The second largest groups were companies that had a profile but no activity at all and the companies that had 5-15 posts per month; for each group, there were 11 companies (18.6 %). 5 companies (8.5 %) did not have a LinkedIn profile at all, and 9 companies (15.3 %) had an account but no regular activity. 4 companies (6.8 %) were in the most active group, with more than 15 posts per month; these companies were from industry, food and ICT. All activity values can be seen in table 8.

TABLE 8: Activities on social media channels

	N	%
Activity on Facebook		
No Facebook page	14	23.7
Facebook page but no activity	0	0.0
Fewer than 50 posts a year	2	3.4
50-100 posts per year	29	49.2
100-500 posts per year	11	18.6
More than 500 posts per year	3	5.1
Total	59	100.0
Activity on Twitter		
No Twitter account	18	30.5
An account but no tweets	2	3.4
Less than every other day	6	10.2
Maximum once per day	13	22.0
1-2 tweets per day	5	8.5
Many tweets per day	15	25.4
Total	59	100.0
Activity on LinkedIn		
No LinkedIn profile	5	8.5
Profile but no activity	11	18.6
Profile but no regular activity	9	15.3
1-5 posts per month	19	32.2
5-15 posts per month	11	18.6
More than 15 posts a month	4	6.8
Total	59	100.0

Compared against each other, B2C companies were more active on Facebook, Twitter and YouTube than were B2B companies. On LinkedIn, however, B2B companies were more active.

On Facebook, the average activity level among B2C companies was 3.66 (on the 1-6 scale) and among B2B companies, it was 3.20. On Twitter, the average activity level among B2C companies was 3.52 (on the 1-6 scale), and among B2B companies, it was 3.47. On YouTube, B2C companies had on average of 154 videos, and B2B companies had 94. On LinkedIn, B2B companies' average activity level was 3.87 (on the 1-6 scale) and B2C companies' was 3.43. All of the mean values can be seen in table 9.

TABLE 9: Mean values of activities in different channels

	B2C	B2B
Facebook activity	3.66	3.20
Twitter activity	3.52	3.47
LinkedIn activity	3.43	3.87
Amount of YouTube videos	154	94

In the reputation data, each company had an indexed value based on the consumer research. For the highest 10% of the companies, the index was greater than 88, and for the lowest 10%, it was less than 47. The average of the indexes was 69. The indexes can be seen in figure 6.
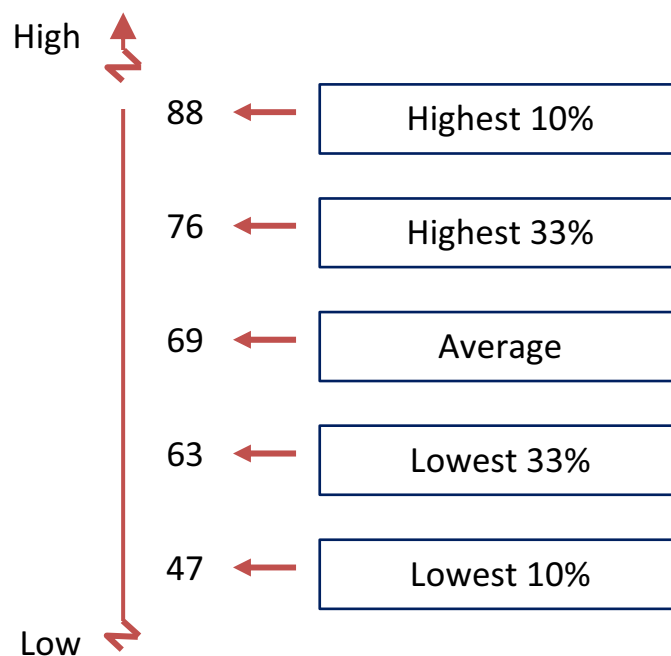
FIGURE 6: Reputation levels

## 5.2 Correlation analysis

The dependencies between the different variables are examined using the correlation analysis in IBM SPSS version 22. The data from social media are compared with reputation index numbers and with financial numbers, including net revenue and net profit. Each social media channel was observed separately, and all data compared with reputation index numbers, net revenue

and net profit using Pearson's r correlation with the aim of determining if there were statistically significant dependencies between them. Pearson's r correlation examines relationships between interval and ratio variables. The aim of correlation analysis is to identify relationships, not causality, between variables. (Bryman and Bell 2011, 347.)

Pearson's r correlation can be used for linear variables. The coefficient lies between 0 and 1 and indicates the strength of relationships. When the coefficient is 0, there is no relationship, and when it is 1 the relationship is perfect. That is the closer the coefficient is to 1, the stronger the relationship between variables. The coefficient can be positive or negative, either of which indicates the direction of a relationship. (Bryman and Bell 2011, 362.)

Correlations between the activity values were also examined. Activities in different channels correlated, so that companies that were active in one social media channel were also active in other channels and the numbers of likes, followers and subscribers in different channels were also correlated. The exact correlations can be seen in table 10.

TABLE 10: Correlations between activities in different channels

		Activity on Facebook	Activity on Twitter	Activity on LinkedIn
Activity on Facebook	Pearson correlation	1		
	Sig. (2-tailed)			
	N	59		
Activity on Twitter	Pearson correlation	.450**	1	
	Sig. (2-tailed)	.000		
	N	59	59	
Activity on LinkedIn	Pearson correlation	.405**	.705**	1
	Sig. (2-tailed)	.000	.000	
	N	59	59	59

**. Correlation is significant at the 0.01 level (2-tailed).

5.2.1 Social media and reputation

The correlation analysis was conducted by comparing the social media data for the reputation index values. Different social media channels were evaluated separately. The correlation analysis showed that there was no statistically significant correlation between reputation and social media activity in any channels. That is, there is no relationship between social media activity and reputation. The correlations between reputation and the different social media channels can be seen in table 11.

TABLE 11: Correlations between reputation and social media activity

			Reputation
Facebook	Likes	Pearson Correlation	-.066
		Sig. (2-tailed)	.666
		N	45
	Talking	Pearson Correlation	-.156
		Sig. (2-tailed)	.318
		N	43
	Activity	Pearson Correlation	.151
		Sig. (2-tailed)	.253
		N	59
Twitter	Followers	Pearson Correlation	.064
		Sig. (2-tailed)	.687
		N	42
	Tweets	Pearson Correlation	-.116
		Sig. (2-tailed)	.464
		N	42
	Activity	Pearson Correlation	.107
		Sig. (2-tailed)	.421
		N	59
LinkedIn	Followers	Pearson Correlation	.069
		Sig. (2-tailed)	.612
		N	57
	Activity	Pearson Correlation	.144
		Sig. (2-tailed)	.275
		N	59
YouTube	Subscribes	Pearson Correlation	.160
		Sig. (2-tailed)	.271
		N	49
	Amount of videos	Pearson Correlation	.084
		Sig. (2-tailed)	.566
		N	49
	Views	Pearson Correlation	.257
		Sig. (2-tailed)	.075
		N	49

When separately examining the correlations in different groups, some correlations were found. These were examined separately by industry and by whether the companies were B2B or B2C. Separate examinations of B2B vs. B2C companies found that the only correlation found was among B2B companies and it was between reputation and the number of talks about the company on Facebook. The correlation was $r = 0.784$, with a significance of $p = 0.012$.

Separate examinations of the different industries found some correlation, especially in the service and food industries. In the service industry, there was a correlation between reputation and Facebook activity (r = 0.843, p = 0.035), between reputation and number of Twitter followers (r = 0.976, p = 0.024) and also between reputation and number of tweets (r = 0.976, p = 0.026)

In the food industry, there were extremely strong correlations between reputation and number of LinkedIn followers (r = 0.976 p = 0.024) and strong correlation between reputation and LinkedIn activity (r = 0.577, p = 0.039). There was also correlation in the food industry between YouTube subscribers and reputation (r = 0.690, p = 0.027) and between YouTube views and reputation (r = 0.663, p = 0.036).

In the industry sector, there was correlation between reputation and number of Facebook talks (r = 0.739, p =0.026).

5.2.2 Social media, size and financial numbers

In examining the relationship between the variables of Facebook activity (likes, talking, and activity) and financial numbers (net revenue, net profit and number of employees), the only significant correlations were between number of people talking about the company on Facebook and net revenue and between number of people talking about the company and number of employees. The correlation for net revenue and number of people talking about the company was r = 0.313 with significance of p = 0.043. The correlation for the amount of personnel and people talking was r = 0.500 with a significance of p = 0.001. This indicates that people on Facebook more often talked the companies that were more profitable and larger (with larger staff). For net profit and other values, there were no significant relationships. The remaining correlations can be seen in table 12.

TABLE 12: Correlations between net revenue, profit and Facebook activities

		Net revenue	Net profit	Amount of personnel
Likes	Pearson correlation	-.004	.155	.295
	Sig. (2-tailed)	.981	.315	.052
	N	44	44	44
Talking	Pearson correlation	.067	.313*	.500**
	Sig. (2-tailed)	.674	.043	.001
	N	42	42	42
Activity	Pearson correlation	.139	.056	.197
	Sig. (2-tailed)	.299	.677	.138
	N	58	58	58

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

For Twitter, the compared variables were the numbers of tweets and followers, activity and the financial figures (net revenue, net profit and number of employees). Significant correlations were found between number of tweets and net profit (r = 0.384, p = 0.013), between number of tweets and number of employees (r=0.591, p=0.000) and between overall activity and net revenue (r = 0.280, p = 0.033). This indicates that larger (with larger staff) and more profitable companies had more tweets and companies with greater net revenue had more yearly activity. Other variables did not correlate significantly. All correlations can be seen in table 13.

TABLE 13: Correlations between net revenue, net profit and Twitter activities

		Net revenue	Net profit	Amount of personnel
Followers	Pearson correlation	-.082	-.060	-.009
	Sig. (2-tailed)	.608	.708	.954
	N	41	41	41
Tweets	Pearson correlation	.159	.384*	.591**
	Sig. (2-tailed)	.322	.013	.000
	N	41	41	41
Activity	Pearson correlation	.280*	.133	.098
	Sig. (2-tailed)	.033	.321	.465
	N	58	58	58

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

For LinkedIn, the compared variables were the number of followers and amount of activity and financial figures (net revenue, net profit and number of employees). Significant correlations were found between activity and net revenue (r = 0.311, p = 0.018), between activity and net profit (r = 0.319, p = 0.015) and between activity and number of employees (r = 0.391, p = 0.002). This indicates that the larger, more profitable companies were also more active on LinkedIn. Number of followers did not correlate with revenue, profit or number of employees. All correlations can be seen in table 14.

TABLE 14: Correlations between net revenue, profit and LinkedIn activities

		Net revenue	Net profit	Amount of personnel
Followers	Pearson correlation	-.052	-.056	-.019
	Sig. (2-tailed)	.701	.684	.888
	N	56	56	56
Activity	Pearson correlation	.319*	.311*	.391**
	Sig. (2-tailed)	.015	.018	.002
	N	58	58	58

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

For YouTube there were no significant correlations between any variables (number of subscribers, videos, or views and financial figures).

Separate examinations by industry found that the largest correlations were found in the food industry; there were correlations between number of likes and net revenue ($r = 0.773$, $p = 0.009$); number of likes and number of employees ($r = 0.843$, $p = 0.002$); number of people talking about the company and net revenue ($r = 0.872$, $p = 0.001$); and number of people talking about company and net profit ($r = 0.778$, $p = 0.008$). In the food industry, there were correlations between number of Twitter tweets and net profit ($r = 0.650$, $p = 0.042$); number of LinkedIn followers and net profit ($r = 0.654$, $p = 0.015$); and number of LinkedIn followers and number of employees ($r=0.630$, $p=0.021$). Additionally, there were correlations between number of YouTube videos and net profit ($r = 0.761$, $p = 0.011$); net revenue and number of videos ($r = 0.912$, $p =0.000$); number of employees and number of YouTube subscribers ($r=0.954$, $p=0.000$); and number of employees and number of YouTube views ($r=0.950$, $p=0.000$).

Separate examinations of B2B vs. B2C companies found that the only correlation among the B2B companies was between net profit and number of people talking about the company on Facebook ($r = 0.774$, $p = 0.024$). Among the B2C companies, there were correlations between net revenue and number of people talking about the company on Facebook ($r = 0.371$, $p = 0.031$) and between net revenue and number of tweets ($r = 0.454$, $p = 0.010$).

5.3 The independent-samples T-test and the Kruskal-Wallis test

The data were also examined for B2B vs. B2C companies. The independent-samples t-test was used to compare the B2B and B2C companies. T-tests are used to test the expected averages between two groups based on comparing the averages (Karhunen et al. 2011).

The T-test showed no difference in social media activity between B2B and B2C companies. For all variables, significance was $p>0.05$, and thus, there were no significant differences. There were also no statistically significant differences between B2B and B2C companies regarding financial figures.

The different industries were compared using the Kruskal-Wallis test, a non-parametric test for comparing the means of more than two groups. Kruskal-Wallis test results are significant when $p<0.05$. (Karjaluoto 2007.)

Significant differences between different industries were found in the means of LinkedIn followers, LinkedIn activity and Facebook likes. On Facebook, the significance for number of likes was $p=0.021$, and On LinkedIn, the significance for number of followers was $p=0.001$, and for activity, it was $p=0.049$. All values can be found in the table 15.

TABLE 15: Comparison of activity between industries

	Food	**Retail**	**Service**	**Finance**	**Energy**	**Industry**	**ICT**	
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	p-value
Facebook								
Likes	27.00	26.00	30.50	23.83	16.00	11.33	34.25	0.021
Talking	20.20	24.00	28.58	25.50	13.40	16.06	32.00	0.168
Activity	30.19	26.50	45.50	27.63	23.67	27.38	38.88	0.165
Twitter								
Followers	17.20	25.00	20.75	16.00	18.33	27.40	31.75	0.221
Tweets	20.00	28.00	19.50	20.21	18.25	23.50	27.75	0.886
Activity	31.92	14.92	29.95	36.63	26.28	30.46	40.13	0.219
LinkedIn								
Followers	16.46	24.20	22.83	30.88	23.13	43.54	45.75	0.001
Activity	25.35	18.67	31.17	32.63	22.00	38.85	44.38	0.049
YouTube								
Subscribes	23.50	21.75	27.33	15.64	18.08	29.42	42.00	0.069
Number of videos	27.05	27.00	25.83	15.79	19.75	24.00	43.63	0.092
Views	29.00	25.25	27.50	20.71	21.50	18.83	42.25	0.124

p-values for the Kruskal-Wallis test for equality of means. H0: Means are equal. H0 is rejected if $p<0.05$

Comparison between different industries and their financial figures using the Kruskal-Wallis test found differences between industries in the net revenue ($p=0.025$) and number of employees ($p=0.001$). The means and p-values can be seen in table 16.

TABLE 16: Comparison of financial figures between industries

	Food	**Retail**	**Service**	**Finance**	**Energy**	**Industry**	**ICT**	
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	p-value
Net revenue	18.77	37.00	28.17	32.63	28.00	40.31	16.75	0.025
Net profit	18.23	24.58	33.00	34.68	30.31	39.31	25.00	0.064
Amount of personnel	23.31	38.17	32.33	26.88	13.75	44.69	19.75	0.001

p-values for the Kruskal-Wallis test for equality of means. H0: Means are equal. H0 is rejected if p<0.05

6   DISCUSSION

In this chapter, conclusions are drawn from the empirical part. The results are compared against the theoretical background, and managerial implications are proposed. In addition, the study is evaluated, and further research propositions are offered.

6.1   Theoretical contributions

The aim of the study was to examine the relationship between social media activity and corporate reputation, firm size and firm performance. The research questions were as follows:

- *Does social media activity have a relationship with good firm performance?*
- *Do companies that are active on social media have better reputations from the consumers' point of view?*

The main focus in the study was on the relationship between social media activity and corporate reputation, but the relationships between social media activity, firm performance and firm size were also examined.

Based on the theory, two propositions were put forth:

P1: *Activity on social media has a positive relationship with firm performance.*
P2: *There is a positive relationship between social media and corporate reputation.*

The first proposition was that social media activity would have a positive relationship with corporate relationship. This proposition is based on the idea that customers want to participate, interact with and create value and that social media provides a means for companies to facilitate this customer participation and interaction, leading to greater consumer involvement and commitment

and, from there, to greater customer satisfaction (Trainor 2012), which again was demonstrated to lead to better corporate reputation (Carmeli and Tishler 2005). This leads to the conclusion that social media has an indirect effect on corporate reputation.

Additionally, participating in social media allows companies to create and maintain long-lasting customer relationships and also offer more complete customer service, which increases customer satisfaction (Kotler et al. 2009, 124; Trainor 2012) and, again, eventually leads to better corporate reputation (Carmeli and Tishler 2005).

This research, however, did not support the proposition that social media activity would have a positive relationship with corporate reputation; the research results find no evidence that companies' social media activity had any effect on corporate reputation from the consumer point of view.

The data were also examined separately by industry and between B2B and B2C companies. No difference in social media activity was found between industries or between B2B and B2C companies.

Even though this research does not support the proposition about the relationship between social media activity and corporate reputation, it is still in line with the idea that a company's mere involvement and activity in its own social media channels and that releasing information through these channels is sufficient, but also that active participation and rapid responses to discussions are required. (Hoffman and Fodor 2010; Peters et al. 2013.) Thus, in contrast with the trust that a company's solely being active in its own social media channels is sufficient, the importance of communication and conversation with consumers has increased (Jones et al. 2010) because consumers want to be listened to, engaged with and responded to by companies (Kietzman et al. 2011).

The other research proposition was that social media activity would have a positive relationship with firm performance. This proposition was based on the idea that social media use could increase customers' involvement with and commitment to the company, which would increase satisfaction and loyalty (Trainor 2012), which were have revealed to have a positive impact on firm equity value (Anderson et al. 2004, Luo et al. 2010). Hence, an indirect effect of social media activity would be better firm performance.

Other financial advantages of using social media are that social media offers a means of acquiring information about the company itself, its customers and its competitors (Ryan and Jones 2009, 152; Wollan et al. 2010, 68) without large market research investments (Hoffman and Fodor 2010). Furthermore, social media is a tool for reducing other costs such as transaction costs and customer search costs (Kotler et al. 2009, 121). The use of social media also helps to attract and retain the best employees, which leads to higher productivity and efficiency and thus also to greater engagement and more positive results for the company (Jue et al. 2010).

This study provides evidence of a partial relationship between firm performance, firm size and social media activity, specifically regarding the use of Twitter and LinkedIn. Larger companies with larger staffs had more tweets

overall, and they were also more active on LinkedIn than were smaller companies with fewer employees. Additionally, companies with greater net revenue were more active on both Twitter and LinkedIn than were companies with less net revenue. The more profitable companies (with greater net profit) had more activity on LinkedIn and more tweets than did less profitable companies. On Facebook, people more often talked about the larger, more profitable companies with more employees, but companies' own Facebook activities had no relationship with firm performance or size. On YouTube, there was no relationship between companies' activity and firm performance or size. Separate examinations by industry found relationships, particularly in the food industry, between activity and firm performance.

A conclusion can be drawn from this result that there is no relationship between social media activity and corporate reputation. Therefore, it cannot be demonstrated that more active companies have better reputation than that are not active in social media. However, a partial relationship can be found between social media activity and firm performance.

6.2 Managerial implications

This research does not support the propositions of relationships between social media activity and corporate reputation, firm size or firm performance. Instead, this research presents a good argument that managers should not believe that simply being active in different social media channels is sufficient to enhance corporate reputation or increase financial performance. Even if a company itself is active on social media, reputation and financial performance are not inherently positive as a result.

The importance of communication and conversation with consumers has increased (Jones et al. 2010) such that it is not sufficient to merely be active in social media. Because this research only takes into account companies' social media activity but not whether anyone responds to the companies' activity, the study does not disprove the idea that active participation and interaction with customers through social media is required. Rather, the theory presents that companies should interact with customers and respond to their actions and needs (Hoffman and Fodor 2010; Peters et al. 2013).

Irrespective of companies' social media actions, most social media activity takes place regardless. Social media has shifted the dominance from companies to consumers such that companies' possibilities for controlling their reputations and discussions about them on the internet have decreased (Bunting and Lipski 2000). However, companies have not lost all dominance; they still control the rules and frameworks for how they and their brands participate in social media. They can, for example, decide what is posted, who will post and in which channels. (Hoffman and Fodor, 2010.)

Furthermore, even though the research provides no evidence about the general relationship between social media activity and reputation, this activity might be more useful in some industries than others. Separate observations by industry found some relationships. Particularly in the service and food industries, there were positive correlations between social media activity and reputation and also, on the food industry, between social media activity and financial figures. Therefore, from a managerial perspective, it is essential to realize the differences between industries.

The research also provides evidence of a partial relationship between social media activity and firm performance. The positive correlation indicates, either that active companies are performing better than others or that well-performing companies are more active in social media. Causality was not examined, so no conclusions can be drawn either way.

Additionally, because no general relationship was found between social media activity and reputation, and the correlations between social media activity and firm performance and among separate industries were positive, there is also not negative relationship between social media activity and reputation or firm performance. That is, social media activity does not harm companies, their reputations, or firm performance.

However, based on, the literature review, there are many reasons to be active in social media. Social media activity offers the opportunity to create and maintain long-lasting customer relationships and increase customer satisfaction, for example by offering more complete customer service (Kotler et al. 2009, 124; Trainor 2012). Social media also allows for acquiring information about companies themselves, their customers and their competitors (Ryan and Jones 2009, 152; Wollan et al. 2010, 68) without high market research investments (Hoffman and Fodor 2010). Furthermore, social media is a tool for reducing costs such as transaction and customer search costs (Kotler et al. 2009, 121) and also for attracting and retaining the best employees (Jue et al. 2010).

Additionally, social media is an important tool for reputational risk management. How a company appears in social media is important (Jones et al 2010) because company's own actions could lead to reputational risk. (Aula 2010).

6.3   Evaluation of the study

The quality of research is evaluated through certain criteria, and the most frequently used methods of evaluating study quality and trustworthiness are measuring its reliability and validity. Reliability means that the research is repeatable and not based on coincidence (Hirsjärvi et al. 2009, 231). Reliability also considers whether the results remain the same when the same study is repeated at a different time by a different researcher using the same scales and measures (Yin 2003). The data about social media activity were collected

directly from companies' social media channels, and thus they are available to anyone and can be collected by any researcher. Because the data came directly from the companies' social media channels, they should offer accurate reflections because there are no intermediaries to skew the information, which could have been the case if companies had been asked directly for the information.

Reliability also requires that the documentation of the research process is consistent and careful so that repetition is possible (Yin 2003). In this research, all phases and methods are carefully explained in order to make the repetition of this study possible.

Validity means that a study accurately investigates the topic it purports to be investigating (Hirsjärvi et al. 2009, 231); it refers to the study's ability to capture the reality of studied phenomenon with the right research methods, including the results (Roe and Just 2009). Validity can also be divided into internal and external. Internal validity describes the researcher's ability to demonstrate that the correlations observed are causal (Roe and Just 2009). Because this research did not investigate the causality, internal validity could not be evaluated. Therefore, it can be said that the fact that this research does not investigate the causality between different factors is one essential limitation. It cannot be proven whether social media activity leads to better reputations and financial figures or if the companies with better reputations and financial situations are just more active in social media.

External validity refers to the generalization of research results (Roe and Just 2009). The sample size in this study was fairly small (N=59), which decreases the generalizability of the results. Hence, it can be argued study's sample size is not sufficient to accurately capture the relationship between social media activity and corporate reputation, firm performance or firm size. With a larger sample, the results would be more trustworthy, and there would also be greater opportunities to compare the differences between industries. The number of companies in the TNS Gallup survey limited the number of companies in this study because if the study had used more companies, no reputation index would have been available. Increasing the number of companies would have been only possible by conducting separate research about reputation, although this would have increased the reliability because the reputation index could have been evaluated.

Another weakness of this research is that there was no previous metric for measuring companies' social media activity; thus, a metric was developed for this research. This means that meter was not tested previously, and its functionality was not demonstrated. Moreover, the corporate reputation indicator came from a secondary source; therefore its trustworthiness also cannot be demonstrated.

In addition, when evaluating the relationship between social media activity and firm performance, net profit is not sufficient to give comprehensive insight into overall firm performance. It should also be noted that the 2013

financial figures were not available for all companies; therefore, some 2012 figures were used. This could have affected the results.

Another limitation in this research is that the data collected from social media channels only described what companies themselves had posted on their social media channels but did not factor in company-stakeholder interactions or customers' activity levels on these channels.

Moreover, some of the social media data are not directly comparable because they do not reflect how long companies have been active on social media. These data were numbers of likes and talks on Facebook, numbers of tweets and followers on Twitter, numbers of LinkedIn followers and all of the data from YouTube.

6.4   Further research

This research did not examine any causality between social media activity and reputation, firm performance or firm size; it only investigated the relationships between social media activity, corporate reputation and financial figures without providing evidence of the directions of relationships. Therefore, a suggestion for further research is to examine the causality between these factors, which would give a more interesting perspective for examining this subject. The causality should be based on theory and tested with structural equation modeling.

Additionally, because this research focused only on social media activity and excluded interactions between companies, customers and other stakeholders, it would be interesting to expand the research these interactions and investigate how they influence reputation and financial performance. A company's social media activity itself does not tell how many people have seen and reacted to that activity; a company's social media activity does not mean that people will react to that activity; therefore, including these interactions would improve the results and make them more versatile.

Furthermore, social media is extremely versatile and includes many channels and ways to participate, and thus, it would be interesting to expand the research to companies' other media activities.

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APPENDIX 1. The collected data

Company	Reputation Index	Facebook Likes	Talking	Posts 2013	Activity	Twitter Followers	Tweets	Activity	LinkedIn Followers	Activity
Food										
Food1	80	267551	1908	162	5	4849	2221	6	5580	6
Food2	78	80879	1318	99	4	284	193	4	1688	4
Food3	67	170618	5374	157	5	3108	2496	6	3776	4
Food4	66	44117	64	92	4	369	104	4	146	2
Food5	65	-	-	0	1	-	-	1	1062	3
Food6	52	102346	17	99	4	1298	989	4	772	4
Food7	47	90914	1849	87	4	604	649	6	316	4
Food8	62	1144	14	81	4	988	722	5	1636	4
Food9	34	-	-	0	1	105	165	3	481	2
Food10	45	61996	150	82	4	-	-	1	504	2
Food11	61	4550	101	123	5	708	334	4	771	3
Food12	49	679	1	83	4	1456	1522	4	540	2
Food13	62	-	-	0	1	-	-	1	436	2
Retail										
Retail1	75	23341	198	79	4	-	-	1	649	3
Retail2	67	82203	543	83	4	-	-	1	4015	3
Retail3	64	-	-	0	1	-	-	1	4451	4
Retail4	53	1793	95	92	4	1766	1372	5	3966	3
Retail5	33	-	-	0	1	-	-	1	496	2
Retail6	49	123588	609	112	5	-	-	1	-	1
Service										
Service1	75	168285	1066	916	6	14600	4210	6	904	4
Service2	66	42126	994	107	5	-	-	1	0	2
Service3	24	4288	77	79	4	473	244	3	2545	5
Service4	37	30517	150	109	5	752	318	4	1653	4
Service5	32	277306	2402	150	5	1349	617	6	7933	4
Service6	24	65657	1409	77	4	-	-	1	1013	3
Finance										
Finance1	63	62205	2658	89	4	2688	1362	6	2809	5
Finance2	46	17797	385	80	4	1872	730	4	40986	5
Finance3	21	8342	196	85	4	478	422	5	25778	4
Finance4	53	-	-	0	1	566	512	4	828	4
Finance5	58	15411	230	82	4	39	0	2	1825	1
Finance6	48	-	-	0	1	919	1439	6	866	5
Finance7	58	12292	46	79	4	-	-	1	7083	1
Finance8	64	40656	639	124	5	1123	1437	6	503	4
Energy										
Energy1	65	3576		118	5	963	1475	6	835	5
Energy2	56	9881	171	91	4	1241	867	4	4908	4
Energy3	41	15415	456	77	4	2975	1907	6	8372	4
Energy4	48	-	-	0	1	12	0	2	198	2
Energy5	46	-	-	0	1	-	-	1	523	2
Energy6	39	7747	27	96	4	3746	401	1	15895	3
Energy7	18	513	24	81	4	336	128	5	905	3
Energy8	37	-	-	0	1	-	-	1	-	1
Energy9	44	31295	36	28	3	-	-	1	189	2
Industry										
Industry1	97	7539	271	79	4	2828	492	3	34004	5
Industry2	79	7595	152	174	5	7607	2557	5	5312	6
Industry3	79	-	-	0	1	1822	1682	6	10765	5
Industry4	68	17614	214	1799	6	4547	4551	6	21212	6
Industry5	58	2814	70	80	4	1452	696	4	20694	5
Industry6	44	4945	98	81	4	929	380	4	4060	5
Industry7	20	4061	114	72	4	2321	156	3	17075	4
Industry8	34	1979		76	4			1	12044	4
Industry9	48	-	-	0	1	-	-	1	4529	1
Industry10	37	1077	17	86	4	2341	3260	6	7586	4
Industry11	50	-	-	0	1	-	-	1	4689	2
Industry12	34	1668	75	80	4	4177	1285	4	35048	5
Industry13	40	-	-	0	1	679	121	3	2882	3
ICT										
ICT1	86	133605	1243	111	5	51200	1058	4	15718	4
ICT2	23	12345411	129572	691	6	1320000	24400	6	252201	6
ICT3	65	16038272	76038	60	4	8240000	4842	6	2233954	5
ICT4	46	3223	48	49	3	175	93	3	1464	4

	Company	Youtube			Financial figures		
		Subscribes	Amount of videos	Views	Net revenue (Meur)	Netprofit (Meur)	Amount of personnel
Food							
	Food1	9267	200	37890995	1696	49	15595
	Food2	-	-	-	298*	24*	190*
	Food3	557	447	2176063	2029	78	4613
	Food4	62	31	90720	285	7	1231
	Food5	-	-	-	476	17	1074
	Food6	52	52	737968	343*	-25*	284*
	Food7	127	185	265915	1411	20	4669
	Food8	191	69	284874	262*	17*	842*
	Food9	-	-	-	2479	31	10927
	Food10	136	43	2599322	326	11	1752
	Food11	48	55	52264	370*	21*	837*
	Food12	11	13	6329	558	39	1896
	Food13	39	45	172935	240*	0*	1341*
Retail							
	Retail1	26	30	37098	1175	49	2610
	Retail2	-	-	-	2037	54	14963
	Retail3	186	82	449839	8539	-8	8897
	Retail4	335	1050	355768	9315	239	19489
	Retail5	-	-	-	1011	-13	3420
	Retail6	31	31	185238	960	49	3554
Service							
	Service1	233	224	1085573	1858	506	333
	Service2	32	32	281747	697	420	1636
	Service3	80	55	16507	1977	51	27253
	Service4	81	11	28479	353	45	2814
	Service5	4271	142	8183842	2400	-9	5803
	Service6	431	70	397729	1421	71	10234
Finance							
	Finance1	108	133	725543	2512	673	12587
	Finance2	91	15	216325	2810*	1113	8937
	Finance3	18	4	1552	860*	98*	2734*
	Finance4	8	25	8660	4231*	4*	572*
	Finance5	41	96	86295	1097	234	2286
	Finance6	-	-	-	5901	4	604
	Finance7	44	30	76482	921*	128	6238*
	Finance8	170	27	984112	93*	28	500
Energy							
	Energy1	91	32	122070	878	239	1562
	Energy2	133	33	1055939	17462	632	5097
	Energy3	82	118	183184	6056	1712	1709
	Energy4	3	3	853	722	23	270
	Energy5	-	-	-	366	31	894
	Energy6	257	265	1084399	453*	0*	27*
	Energy7	-	-	-	-	-	-
	Energy8	-	-	-	147	19	80
	Energy9	3	5	2177	2296	24	232
Industry							
	Industry1	250	18	45857	6933	953	41139
	Industry2	24	20	4893	798.6	61	4330
	Industry3	466	151	315086	2100	1155	11800
	Industry4	1438	148	773410	4654	520	18749
	Industry5	154	23	49850	1912	142	4855
	Industry6	252	168	399074	2404	39	8955
	Industry7	159	115	110969	10544	34	28231
	Industry8	275	343	215221	10054	548	20950
	Industry9	46	18	49355	243	-6	3536
	Industry10	86	34	24558	2241	33	4857
	Industry11	-	-	-	2342	167	14362
	Industry12	274	31	44422	3858	423	11670
	Industry13	86	67	41738	4932	342	11222
ICT							
	ICT1	1039589	474	1494197856	152*	56*	311*
	ICT2	301234	383	185695543	12700	519	55025
	ICT3	2593920	1050	823471240	11*	1*	39*
	ICT4	93	127	205960	182	-3	514

* from the financial year 2012