

**POLITECNICO DI MILANO**  
Scuola di Ingegneria dei Sistemi



**POLO TERRITORIALE DI COMO**

**Master of Science in  
Management, Economics and Industrial Engineering**

# **SOCIAL MEDIA AND KPIs: A LITERATURE REVIEW**

**Supervisor: Michela Arnaboldi**

**Assistant Supervisor: Deborah Agostino**

**Master Graduation Thesis by:**

<b>Hector Martin Diaz Paredes</b>	<b>782117</b>
<b>Giacomo Piero Toso Rojic</b>	<b>780028</b>

**Academic Year 2011 / 2013**

**POLITECNICO DI MILANO**  
Scuola di Ingegneria dei Sistemi



**POLO TERRITORIALE DI COMO**

**Master of Science in  
Management, Economics and Industrial Engineering**

# **SOCIAL MEDIA AND KPIs: A LITERATURE REVIEW**

**Supervisor: Michela Arnaboldi**

**Assistant Supervisor: Deborah Agostino**

**Master Graduation Thesis by:**

<b>Hector Martin Diaz Paredes</b>	<b>782117</b>
<b>Giacomo Piero Toso Rojic</b>	<b>780028</b>

**Academic Year 2011 / 2013**

## ABSTRACT

Social Media evaluation and measurement covers a relevant aspect of corporate online communication. How do brands and companies manage their presence in activities related to social media?

Being in the age of the World Wide Web every organisation can measure its activities of online communication itself. It is not a possibility it is actually a must, because the measurement of social media activity is not only defined as “audience reach” any more, but there are several additional elements to consider. The goal of every company is to gain profit and increase their ROI, for this social media evaluation is capable of displaying how successful the single online efforts contribute to that goal.

The present thesis work aims at explaining why it is so important for companies nowadays to measure relevant online interactions through the main social networks. For this reason, a literature reviews on social media measurement in companies is carried out in order to evaluate the state-of-the-art topics. The main chapter presents the analysis of our results by showing the background of social media, the role of social media in companies and how companies can evaluate social media. Included are preparations, goal-setting, methods on how to measure and typical metrics as well as a choice of instruments allowing fulfilling the measurement process with defined Key Performance Indicators (KPIs) according to the papers reviewed.

## Table of Contents

1.	Introduction .....	5
2.	Objective .....	7
3.	Main Concepts .....	7
3.1.	Social Media .....	7
3.2.	Key Performance Management (KPM).....	17
4.	Methodology .....	19
4.1.	Searching Method .....	19
4.2.	Inclusion Criteria .....	21
4.3.	Data Base consulted .....	22
4.4.	Descriptive Review .....	22
5.	Analysis of Results.....	27
5.1.	The background of using social media in companies .....	28
5.2.	How to use social media in a company .....	30
5.2.1.	Social Media as a Marketing tool .....	30
5.2.2.	Product Development .....	33
5.2.3.	Communication.....	35
5.2.4.	Use of Social Media in the Supply Chain .....	36
5.3.	Evaluation of social media performance in the company .....	39
5.3.1.	Social Media measurement .....	39
5.3.2.	Instruments to collect data .....	47
6.	Conclusions .....	51
7.	References .....	52
8.	Appendix .....	55

## Table of Figures

Figure 1: Using of Social Media.....	5
Figure 2: Social Media Prism.....	8
Figure 3: Opinions regarding Social Media .....	9
Figure 4: Commonly used social media tools .....	11
Figure 5: Content of Tweet .....	13
Figure 6: Twitter Facts .....	14
Figure 7: World Map of Social Networks .....	17
Figure 8: KPIs Management diagram concept .....	18
Figure 9: Steps for initiating search .....	21
Figure 10: Steps for selection criteria .....	21
Figure 11: Number of articles by searching drivers .....	23
Figure 12: Number of articles selected.....	23
Figure 13: Number of results by keyword .....	24
Figure 14: Number of articles .....	25
Figure 15: Methodology of articles.....	25
Figure 16: Countries where articles were developed .....	26
Figure 17: Timeline of Social Media sites from 1997 – 2010 .....	29
Figure 18: The co-creation of the on-going brand narrative .....	34
Figure 19: Effects of Social Media on company .....	40
Figure 20: Effects of Social Media on company .....	41
Figure 21: Role of influence in Social Media activities.....	41
Figure 22: Illustration of brand visibility scores .....	48

## List of Tables

Table 1: Main characteristics of Social Media sites .....	10
Table 2: Number of users in Facebook from 2008 to 2013 .....	12
Table 3: List of YouTube video categories .....	16
Table 4: Marketing summary .....	32
Table 5: Product Development summary .....	35
Table 6: Communication summary .....	36
Table 7: Supply Chain summary .....	38
Table 8: List of KPIs .....	42
Table 9: Returns levels in Social Media .....	45
Table 10: Meta-data of a YouTube video .....	46

## Table of Appendices

Appendix 1: Quantitative Results .....	55
Appendix 2: Literature Review – Science Direct .....	56
Appendix 3: Literature Review – Emerald .....	58
Appendix 4: Literature Review – Springer Link .....	59
Appendix 5: Literature Review – Wiley .....	60
Appendix 6: Literature Review – Others .....	63

## 1. Introduction

Nowadays, in a fast changing business environment, companies need to manage technological sources and go more and more beyond consultative, cooperative and willing to use these tools. Today's social media world includes many applications, software and web sites such as YouTube, Facebook, Twitter, LinkedIn and many others that help companies to become more profitable and reach their markets. For this reason, it is so relevant for companies also focus their efforts on finding ways to measure the impacts that these tools have on their day-by-day results. Apart from the financial ROI, social media evaluation offers much more valuable things for companies and brands. To a certain degree, it is about getting to know one's own business. Very often, agencies are assigned to establish social media presences on the Internet and discover inactive Facebook fan pages, YouTube channels, LinkedIn professional profiles and Twitter accounts which no one seems to have known about. They all are potential depositories for valuable customer insights into or discussions about one's own as well as the competitor's products and services. But also negative sentiment can be generated in these abandoned spaces and no one is there to react appropriately in time.

According to the Social Media Marketing Industry Report (2012) 94% of businesses are using Social Media to marketing purpose as shown in Figure 1. And 83% of them believe that Social Media is important for their businesses.

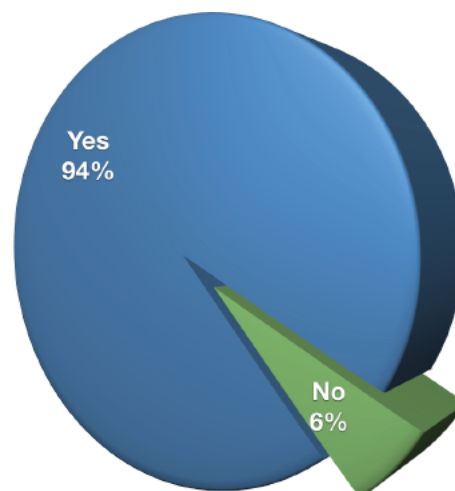


Figure 1: Using of Social Media  
Source: Social Media Marketing Industry Report (2012)

The present thesis work aim at doing a literature review regarding key indicators adopted by companies to measure their performance and their activities. In addition to this, we centralize our searching in revising many articles and papers close related to these subjects in order to understand

clearly the relevant role of social media in organization and, of course, the different methods for measuring this web-based tools for controlling and analysing their impacts on business performance and how this new technological sources can improve the well operation of the organization.

The first part of the thesis work defines the main concepts and describes the main social networks that we focused on. Secondly, we explain in detail the methodology of searching we made in order to select the articles and build our literature review table.

Then, in the next chapter, we describe the analysis of results based on different articles written and published by leading scholars that show in term of Social Media measurement in companies as well as concepts, models, instruments, parameters of control, performance and effective decision-making.

Finally, in the last section of the thesis we list the conclusions of our work according to our main findings after the analysis by emphasizing about the great importance of evaluation of Social Media tools within an organization and how this can incredibly boost the outcome of deal with people's perception and taking into account being prudent with the using of this tool.



## 2. Objective

We want to investigate the state-of-the-art on the performance of the main applications in social media are measured in order to know how these sources affect companies, considering the fast changes that organizations are experiencing nowadays.

## 3. Main Concepts

The purpose of this chapter is to present the main concepts and definitions close related to our thesis work which are Social Media and Key Performance Management. As far as social media is concerned, we found a definition according to Andreas Kaplan and Michael Haenlein (2010)<sup>1</sup> which defines social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content".

### 3.1. Social Media

Social Media is form of media which describes a wide range of new sources of online information that are created, initiated, circulated and used by consumers' intent on educating each other about products, brands, services, personalities, and issues. It also refers to the means of interactions among people in which they create, share, and exchange information and ideas in virtual communities and networks. According to Reyneke, Pitt and Berthon (2011)<sup>2</sup> social media may be also defined as media designed to be disseminated through social interaction between individuals and entities such as organizations. In addition to, the authors say that social media use internet and web-based technologies to transform broadcast media monologues (one to many) into social media dialogues (many to many). For instance, refers to Figure 2 in order to see the wide range of social media that exist classified by sectors. They support the democratization of knowledge and information, transforming individuals from mere content consumers into content producers.

Furthermore, social media depends on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content. It introduces substantial and pervasive changes to communication

---

<sup>1</sup> Kaplan & Haenlein (2010). Users of the world, unite! The challenges and opportunities of Social Media

<sup>2</sup> Reyneke, Pitt and Berthon (2011). Luxury wine brand visibility in social media: an exploratory study

between organizations, communities and individuals<sup>3</sup>. Social media differentiates from traditional/industrial media in many aspects such as quality, reach, frequency, usability, immediacy and permanence<sup>4</sup>. The phenomenon of online social interaction has evolved to include more than stereotypical teenagers looking to expand their network of online friends. People of all ages and backgrounds have discovered that they can enrich their lives through the contacts they make on social networking websites.



Figure 2: Social Media Prism  
Source: [www.spirdesign.no](http://www.spirdesign.no)

<sup>3</sup> H. Kietzmann, Jan; Kristopher Hermkens (2011). "Social media? Get serious! Understanding the functional building blocks of social media". Business Horizons 54: 241–251.

<sup>4</sup> Nigel Morgan; Graham Jones; Ant Hodges. "Social Media". The Complete Guide to Social Media from the Social Media Guys. Retrieved 12 December 2012.

### Importance of Social Media

Social Media is all about relationships first and foremost. Rather than one-to-many forms of health communications, social media is about supporting many-to-many interactions. Unlike traditional communications strategies, messages are directed “at” or “to” people; social media involves creating relationships with the audience. It is about building up a relationship with many people with the full sense that such a relationship will look different from person to person and from your organization to your audience.

Michael A. Stelzner (2012)<sup>5</sup> claimed that social media is important for business. Also, the overwhelming majority of business people (94%) indicated they were employing social media for marketing purposes.

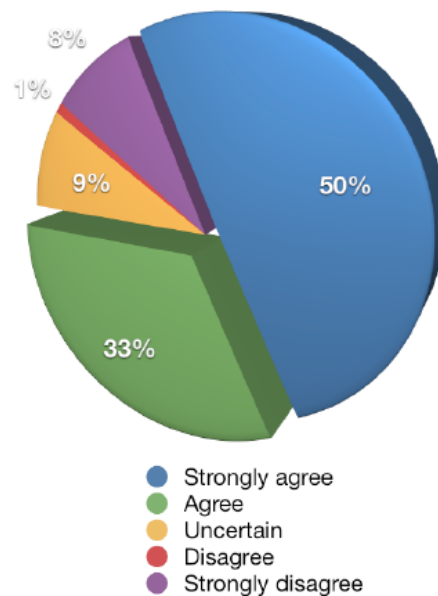


Figure 3: Opinions regarding Social Media  
Source: **Social Media Marketing Industry Report (2012)**

As can be seen in the Figure 3 above, a significant 83% of marketers said that social media is important to their business; this is a drop from 2011 where 90% thought social media was important (62% strongly agreed in 2011).

The value of social media is present in many ways, referred Reyneke, Pitt and Berthon (2011)<sup>2</sup>, they have not only changed the way in which organizations and their brands interact with their customers, it has also changed the way business gets done. Organizations are now not only able to reach customers online and interact with them; they are also able, if this is managed effectively, to become part of customer conversations. Brands are attempting to utilize social media to reach existing customers, gain new ones, and build or maintain credibility and reputation.

<sup>5</sup> Michael A. Stelzner (2012). Social Media Marketing Industry Report

### Classification of Social Media

Social media technologies can take on many different forms including magazines, Internet forums, weblogs, social blogs, micro blogging, wikis, social networks, podcasts, photographs or pictures, video, rating and social bookmarking. Technologies include: blogs, picture-sharing, vlogs, wall-postings, email, instant messaging, music-sharing, crowdsourcing and voice over IP, to name a few. Many of these services can be integrated via social network aggregation platforms. By applying a set of theories in the field of media research (social presence, media richness) and social processes (self-presentation, self-disclosure) Kaplan and Haenlein created a classification scheme in their Business Horizons (2010) article as shown in Table 1, with six different types of social media: collaborative projects (for example, Wikipedia), blogs and microblogs (for example, Twitter), content communities (for example, YouTube and DailyMotion), social networking sites (for example, Facebook), virtual game worlds (e.g., World of Warcraft), and virtual social worlds (e.g. Second Life). Nevertheless, the boundaries between the different types have been increasingly blurred. For example, Shi, Rui and Whinston (2013) argues that Twitter, as a combination of broadcasting service and social network, is better to be classified as a "social broadcasting technology."

		Social presence / Media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Youtube)	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)

Table 1: Main characteristics of Social Media sites  
Source: Kaplan, Andreas (2010)

The Internet has made the world smaller, information is at our fingertips. Nowadays, with social media, we have even more access to news and opinions than ever before. It is now entirely common to hear someone ask you to share something on Facebook or to receive breaking news via Twitter on your smartphone or to upload some videos on YouTube. The world has changed from keeping a paper with a list of contacts to knowing nearly everything about everyone you've ever met.

For our analysis, we have selected as main social media tools Facebook, Twitter, LinkedIn and YouTube due to their great significant role in companies and because they are more spread

nowadays. As can be seen in Figure 4, Facebook, Twitter, LinkedIn, blogs and YouTube are the top five social media tools used by marketers, with Facebook leading the pack. All of the other social media tools are much less popular in comparison to this top five. It is important to stand out that the top five have remained virtually the same since 2011.

We did not include the categories of Blog and Google+ because their use is less relevant in companies and they are not that extended within users. Basically, blogs are more used as a discussion or informational way and mostly focus on reading and commenting. While Google+ is employed by all users which already had a Gmail account and nowadays many people are recognizing Google's staying power, marketers are clamouring to better understand the possibilities of Google, this a multilingual social networking and identity service is still growing and in expanding period.

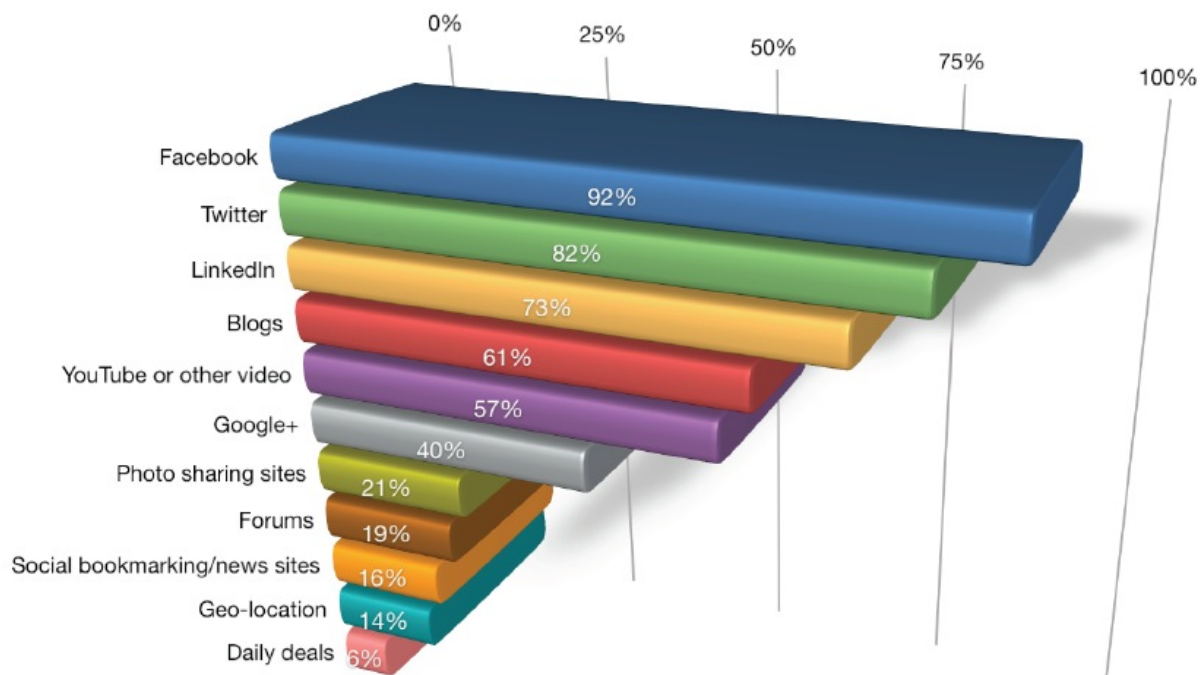


Figure 4: Commonly used social media tools  
Source: Social Media Marketing Industry Report (2012)

Furthermore, we discovered that according to eBizMBA Rank ([www.ebizmba.com](http://www.ebizmba.com)) last publication on July 2013 Facebook, Twitter and LinkedIn are listed in the first 3 positions respectively from the top 15 most popular social networking sites, this ranking is based on the constantly updated average of traffic rank and numbers of visitors. In addition to this, by using the same characteristics the web information company Alexa ([www.alexa.com](http://www.alexa.com)) says that YouTube is positioned in fourth place within the most popular website ranking and YouTube is also defined as

the best way to upload, tag and share your videos worldwide. For all these reasons, we are going to focus on defining these social networking websites in the following pages.

### Facebook

Facebook is an online social networking service, whose name stems from the colloquial name for the book given to students at the start of the academic year by some university administrations in the United States to help students get to know each other. Users must register before using the site, after which they may create a personal profile, add other users as friends, and exchange messages, including automatic notifications when they update their profile.

In addition to this, we can mention that Facebook is a key example of a social media site, with over one billion active users in October 2012, for more details please refers to Table 2.

**Total active users**

Date	Users (in millions)	Days Later	Monthly growth
August 26, 2008	100	1,665	178.38%
April 8, 2009	200	225	13.33%
September 15, 2009	300	160	9.38%
February 5, 2010	400	143	6.99%
July 21, 2010	500	166	4.52%
January 5, 2011	600	168	3.57%
May 30, 2011	700	145	3.45%
September 22, 2011	800	115	3.73%
April 24, 2012	900	215	1.74%
October 4, 2012	1,000	163	2.04%
March 31, 2013	1,110	178	1.67%

Table 2: Number of users in Facebook from 2008 to 2013  
Source: Facebook Reports (2013)

### Twitter

It is an online social networking service and mostly a micro blogging service that enables its users to send and read text-based messages of up to 140 characters, known as "tweets". Launched in 2006, Twitter was designed as a social network to keep friends and colleagues informed throughout the day. However, it became widely used for commercial and political purposes to keep customers, voters and fans up-to-date as well as to encourage feedback.

On the other hand, Reyneke, Pitt and Berthon (2011)<sup>6</sup> defined micro-blogs as social networking services that enable its users to send and read very short messages, usually restricted by the number of characters in the message. The best known of these is Twitter, through which users can send messages known as “tweets” which are text-based posts with a certain number of characters displayed on the author’s profile page and delivered to the author’s subscribers who are known as followers, for more details about “tweets” content refers in Figure 5. Senders can restrict delivery to those in their circle of friends or, by default, allow open access. Users can send and receive tweets via the Twitter web site, text messaging on cell phones, or external applications.

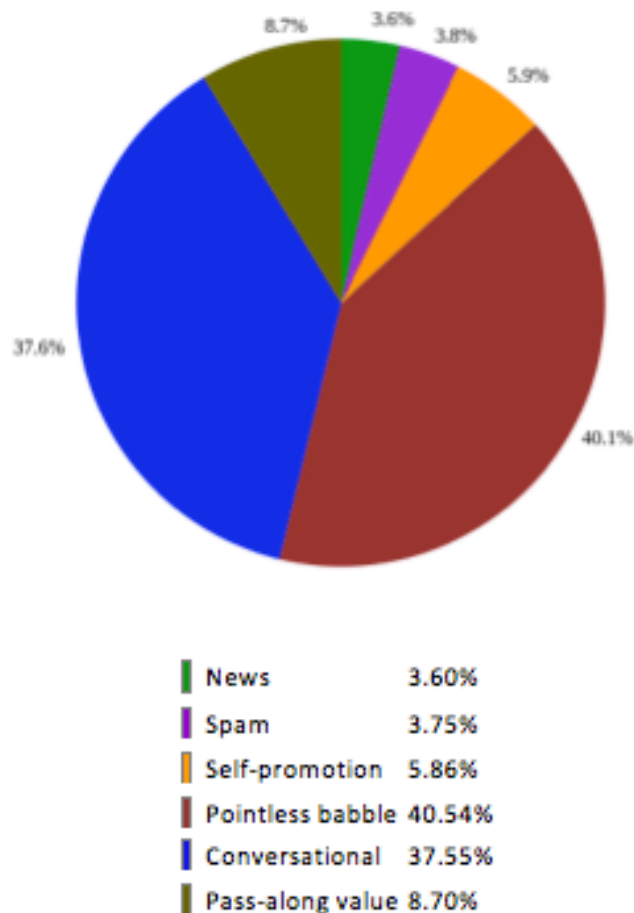


Figure 5: Content of Tweets  
Source: Pear analytics survey (2009)

Twitter has gained much prominence in the recent past. For example, during the 2009 Victorian bushfires, the Prime Minister of Australia, Kevin Rudd used his Twitter account to send out information on the fires, how to donate money and blood, and where to seek emergency help. In June 2009, following allegations of fraud in the Iranian presidential election, protesters used

<sup>6</sup> Reyneke, Pitt and Berthon (2011). Luxury wine brand visibility in social media: an exploratory study

Twitter as a rallying tool and as a method of communication with the outside world after the government blocked several other modes of communication. Below, as can be seen in Figure 6, we are showing some Twitter facts that reflect its great relevant all over the world.

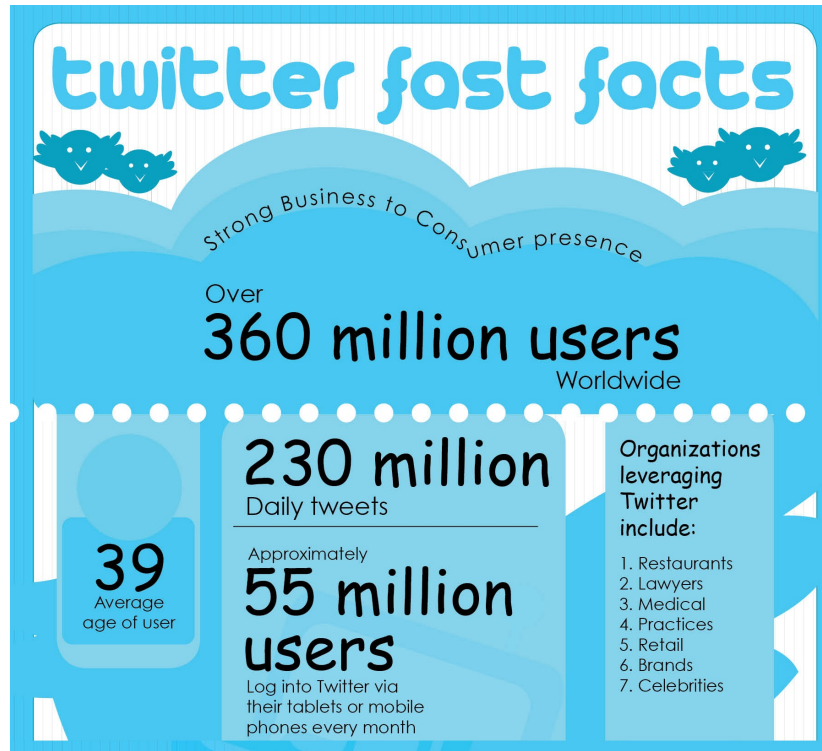


Figure 6: Twitter Facts  
Source: The Huffington Post (2011)

### LinkedIn

LinkedIn is a worldwide social networking website for people in professional occupations and maybe referred as social software or an online community. It can also be define as business-oriented social networking site that enables users to connect with colleagues, look for a job or business relationships and get answers to industry questions. LinkedIn users invite people they know and trust to become "linked in" to them, and the business connections of invited users are in turn linked. However, in order to reach connections down the line, requests for introductions have to be made.

LinkedIn was founded in December 2002 and launched on May 5, 2003; it is mainly used for professional networking. As of January 2013, LinkedIn reports more than 200 million acquired users in more than 200 countries and territories.



LinkedIn's main purpose is to provide business opportunities for professionals from all over the world through organizing and expanding one's professional network. The network addresses both employers and employees, and it mediates a potential for people to find new resources in addition to being found and given opportunities as a resource. Users can search for jobs, clients or partners; they can distribute listings, discuss business issues and make themselves more visible in their own industry or business sector.

In short, users create a profile where they put down their qualifications and interests, very much like a resume. Any member of LinkedIn will, through searching for the same qualifications, be able to find someone's profile. In addition to this, it is possible to send out invitations and search for former colleagues and classmates, as well as other acquaintances. The users create the content and manage the information on their own. Still, the website is not free from co-operative control and users operate under a number of limitations, especially in regard to interaction and whether or not the user has a paid premium account.

### [YouTube](#)

According to Hopkins (2006) YouTube is a video-sharing website, created by three former PayPal employees in February 2005, on which users can upload, view and share videos. YouTube is the largest video-sharing site on the Web. YouTube lets anyone upload short videos for private or public viewing.

This site also provides a venue for sharing videos among friends and family as well as a showcase for new and experienced videographers. Featuring videos it considers entertaining, YouTube has become a destination for ambitious videographers, as well as amateurs who fancy making a statement of some kind. In addition, YouTube emerged as a major venue for excerpts from political speeches.

The videos presented in YouTube site are very diverse, according to the study of Cheng, Dale and Liu (2008)<sup>7</sup> obtained 27 datasets totalling 2,676,388 approximately distinct videos. This constitutes a significant portion of the entire YouTube video repository. Also, because most of these videos can be accessed from the YouTube homepage, they are generally active and thus representative for measuring characteristics of the repository. The authors listed the count numbers and percentages of all the categories. In the entire dataset in Table 3 can be noted that distribution is highly

---

<sup>7</sup> Cheng, Dale and Liu (2008). Characteristics and Potentials of YouTube: A Measurement Study

skewed: the most popular category is “Music”, at about 22.9%; the second is “Entertainment”, at about 17.8%; and the third is “Comedy”, at about 12.1%.

<b>Category</b>	<b>Count</b>	<b>%</b>
Autos and Vehicles	66,878	2.5
Comedy	323,814	12.1
Entertainment	475,821	17.8
Film and Animation	225,817	8.4
Gadgets and Games	196,026	7.3
Howto and DIY	53,291	2.0
Music	613,754	22.9
News and Politics	116,153	4.3
People and Blogs	199,014	7.4
Pets and Animals	50,092	1.9
Sports	258,375	9.7
Travel and Places	58,678	2.2
Unavailable	24,068	0.9
Removed	14,607	0.5

Table 3: List of YouTube video categories  
Source: Cheng, Dale and Liu (2008)

In the Table 3, it is also listed two other categories. “Unavailable” are the videos set to private, or videos that have been flagged as inappropriate, whilst “Removed” are videos that have been deleted by the uploader, or by a YouTube moderator (due to the violation of the terms of use), but are still linked to by other videos.

Finally, we can highlight the distribution of these relevant social media tools as being seen in the following graphic, shown in Figure 7 below:

## The world map of social networks

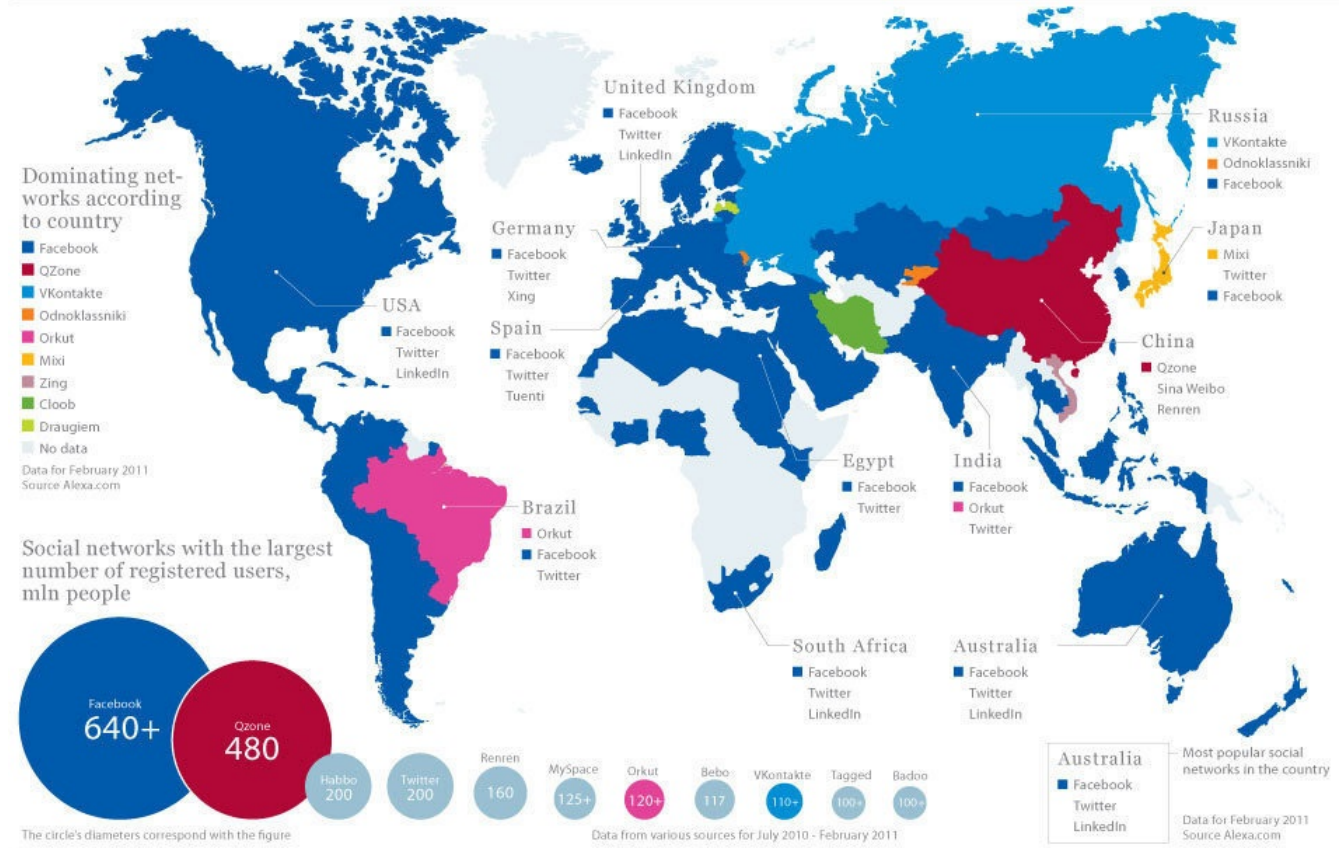


Figure 7: World Map of Social Networks  
Source: [www.techinasia.com](http://www.techinasia.com)

### 3.2. Key Performance Management (KPM)

It is the fulfilment of given tasks measured within many areas in an organization. It aims at determining how the business can reach its goals. On the other hand, this requires the alignment of strategic and operational objectives and the business' set of activities in order to manage performance. It is a type of performance measurement<sup>8</sup>. Within of an organization, key indicators are used to evaluate its success, or to evaluate the success of a particular activity in which it is engaged as shown in Figure 8. Sometimes success is defined in terms of making progress toward strategic goals, but often success is simply the repeated, periodic achievement of some level of operational goal<sup>9</sup>. In addition to this, these indicators define a group of values used to measure. These raw sets of values, which are fed to systems in charge of summarizing the information, are called indicator.

<sup>8</sup> Carol Taylor Fitz-Gibbon (1990). "Performance indicators", BERA Dialogues  
<sup>9</sup> <http://management.about.com/cs/generalmanagement/a/keyperfindic.htm>

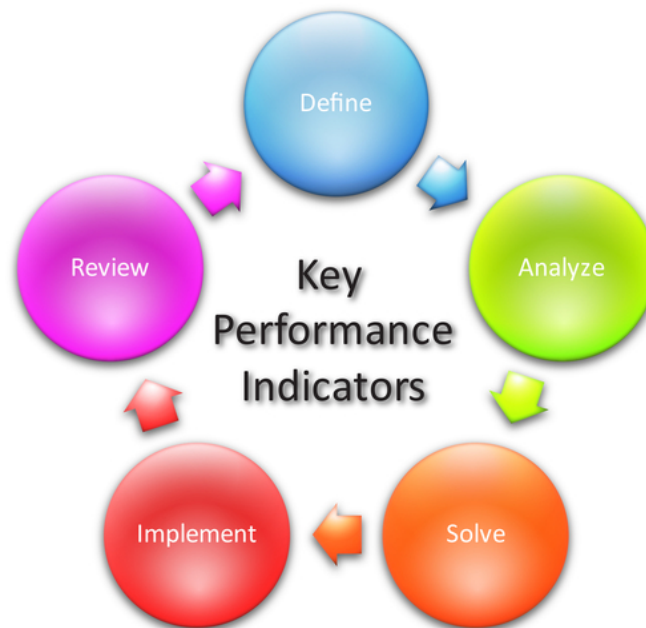


Figure 8: KPIs Management diagram concept  
Source: [www.dreamstime.com](http://www.dreamstime.com)

### ***Key Performance Indicators (KPIs)***

A key performance indicator (KPI) is a business metric used to evaluate factors that are crucial to the success of an organization. A KPI is also a great tool to measure and control the performance of any given process. As the famous Peter Drucker's (1974)<sup>10</sup> phrase says *"that which cannot be measured cannot be managed"*. The whole process of control therefore relies on real time measurement and transfer of information from the site where the task is actually being performed to the control room, for example: the management.

According to the online dictionary webopedia ([www.webopedia.com](http://www.webopedia.com)) KPI is defined as "KPIs (key performance indicators) help organizations achieve organizational goals through the definition and measurement of progress. The key indicators are agreed upon by an organization and are indicators which can be measured that will reflect success factors. The KPIs selected must reflect the organization's goals, they must be the key to its success, and they must be measurable. Key performance indicators usually are long-term considerations for an organization".

In addition to, the term KPI is, to some extent, ambiguous because the term has been widely used and differentiates in meaning between individuals. Burby & Atchison (2007)<sup>11</sup> Burby & Atchison

<sup>10</sup> Peter Drucker (1974). Management: Tasks- Responsibilities- Practices

<sup>11</sup> Burby & Atchison (2007). Actionable Web Analytics: Using Data to Make Smart Business Decisions

simplifies the definition by “...a KPI is a measurement of performance based on your most important web goals”. While, in relation to web analysis, Clifton (2010)<sup>12</sup> defines KPI as “a web metric that is essential for your organization’s online success”. Therefore, we strongly believe that KPIs are relevant and closely related to companies that use often social media tools.

In summary, we might say that the essential part of the definition of KPI is the emphasis on “key”, “important” and “essential” in the three provided definitions.

## 4. Methodology

On this chapter, the methodology used will be described in details. Firstly, the searching approach through online database that contains researches, journals and articles published by scholars all over the globe. The period of time includes articles from 2008, the oldest one, to present time.

Secondly, we created a chart with findings of key words.

Last but not least, the outcome of analysis is the literature review figure that contains in details the articles ordered by author, year, name, country, sector, etc.

### 4.1. Searching Method

The methodology that we used to search all articles that are going to be analysed in this document was a systematic review.

In this systematic review the first step is define the questions that this document will answer. To define these questions is necessary to understand in a clear way the objectives of the document, after analysing these goals, the questions that we defined to do the literature review were:

- How Social Media impacts on a company?
- How companies evaluate Social Media performance?

After defining the questions to be responded by the document, the next step was the finding of the Keyword. A keyword in the context of literature review is the specific word that characterizes the content of the articles. They allow searching drivers to find all documents that have to be analysed

---

<sup>12</sup> Brian Clifton (2010). Advanced Web Metrics with Google Analytics

and then be selected if they are related in some way answer the questions mentioned before.

These Keywords that we selected among various possibilities are:

- Social Media
- Facebook
- Twitter
- LinkedIn
- YouTube

All this keywords connected with:

- Performance
- Indicators
- Evaluation

After the selection of the keywords was necessary to evaluate the strategy that will be used in the searching engines, to do that, it was necessary to select the Boolean connector (“AND”, “OR” and “NOT”) that will be used to connect the keywords, and also was necessary to define in which section of the articles the analysis will be done (i.e. Abstract, title, all Fields, etc.). The first thing that was selected was the section of the article, after an evaluation of the possibilities, the section selected was the abstract of the documents, in order to evaluate in a gross way all the possible articles that contains in his abstracts the keyword. And the second thing was the Boolean connector that will be used in the research, in this case the Boolean selected was “AND”, because, the keyword that were chosen have to be at the same time in the document (i.e. Social Media “AND” Performance). All these steps followed can be seen in Figure 9.

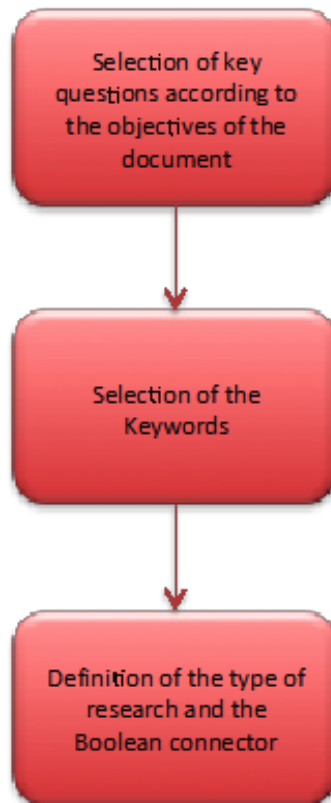


Figure 9: Steps for initiating search

#### 4.2. Inclusion Criteria

The articles found were analysed following certain steps in order to define if they are included in our literature review table. These main steps are the shown in Figure 10 and described below:

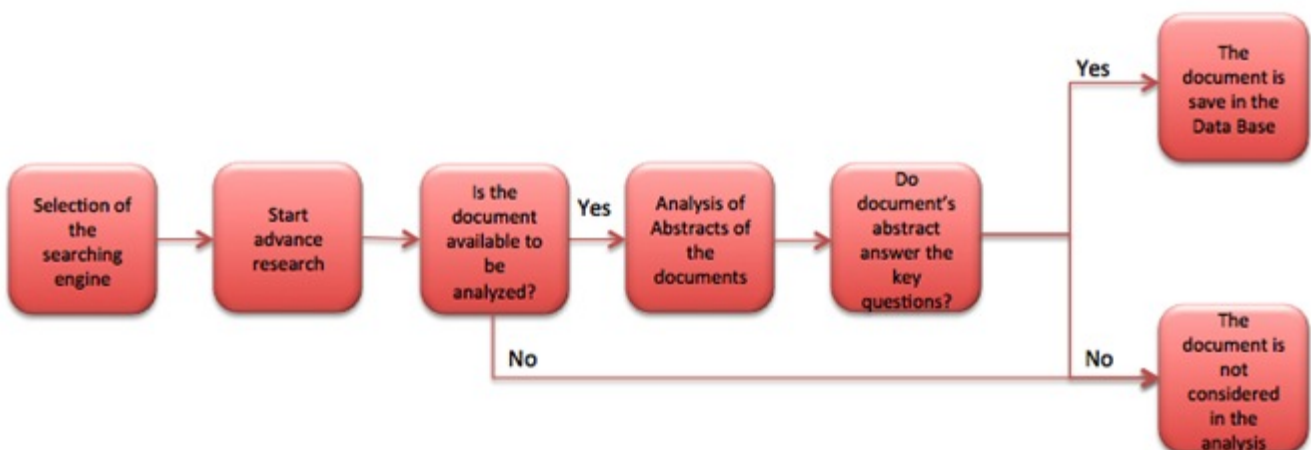


Figure 10: Steps for selection criteria

In the selection of the searching engines as we mention before we select four searching engines that are part of convention that our university provides in order to consult literature with a truly sources. These Searching engines are: Emerald, Springer link, Science Direct and Wiley. In all pages it is the possibility to do a normal research and an advance research, the advance research consists in a more detailed way to perform the research specifying the keywords and the Booleans used to connect it and also the section of the document that will be analysed. In our case we did an advance research in order to evaluate all the Keywords and his respective type of research that we already described in the section before, once we start the advance research, the first step was to check if the documents that the research give us are part of the document available to be analysed with our student profile, if we could not have the possibility to access to this article, the article is discarded of our research. While if the document is available to be completely read, we carry on with the evaluation by reading the abstract of each paper and deciding if the document can be aligned with the objectives of the study if it is aligned, the document is included in the database that will be analysed more deeply, otherwise, the document is not considered in the final evaluation.

### **4.3. Data Base consulted**

We wanted ensure the quality of the searching, for this reason, we used 4 main data base: Science Direct, Emerald, Springer Link and Wiley due to their trusted source of journal close related to Social Media and its relation with companies performance.

### **4.4. Descriptive Review**

The following graphics can clearly explained our searching: The Figure 11 and Figure 12 show the total number of result obtained from the research and the number of articles selected respectively, both figures are expressed in terms of the searching engines.



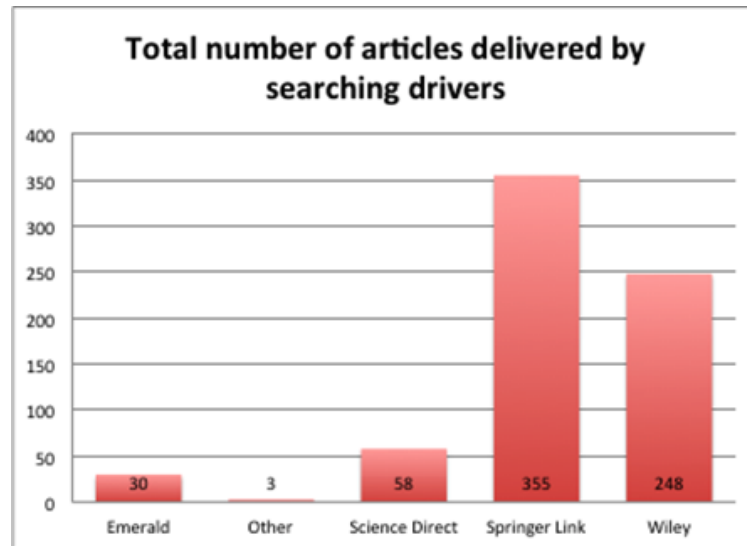


Figure 11: Number of articles by searching drivers

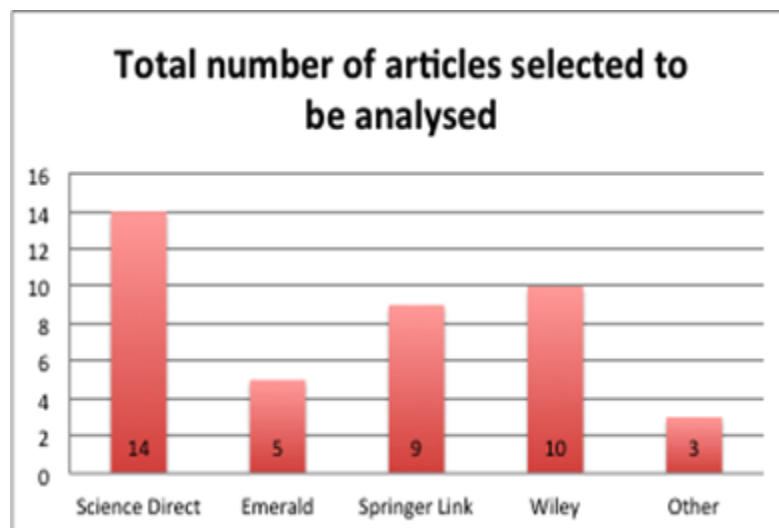


Figure 12: Number of articles selected

The big difference between Springer Link and other searching engines in the total number of results is due to the fact that Springer Link does not have an advanced search as the other ones. In the case of Springer Link is not possible to evaluate the keywords directly in the abstract of the documents, which is way these searching drivers deliver a huge quantity of papers. Also in Wiley the amount of results is too high in comparison to the other, in this case the results delivered were very general and no focus with the subject in question and the huge number is related with the fact that this page has a very big number of documents in the database.

The Figure 13 below will show the number of result related to the principal keywords (Social Media, Facebook, Twitter, YouTube and LinkedIn).

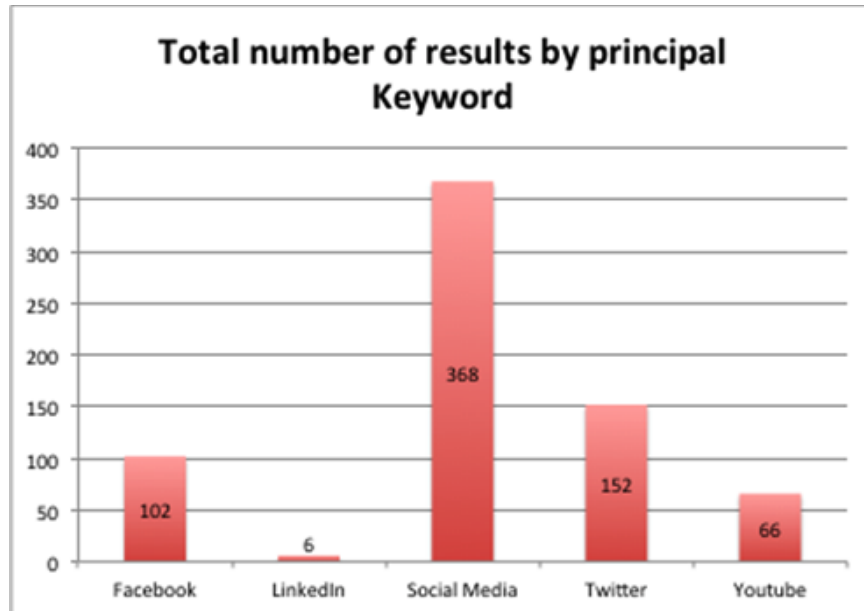


Figure 13: Number of results by keyword

This figure clearly demonstrates that “Social Media” is a subject that is being currently analysed. Also Facebook and Twitter even that they are more specific keywords have a important number of results.

The Figure 14 below give us a clear example that Social Media and his impact in business is a topic relatively new, the 83% of documents analysed do not have more than 3 years, that in some way tell us that this topic is still growing, and in a near future more articles will appear.

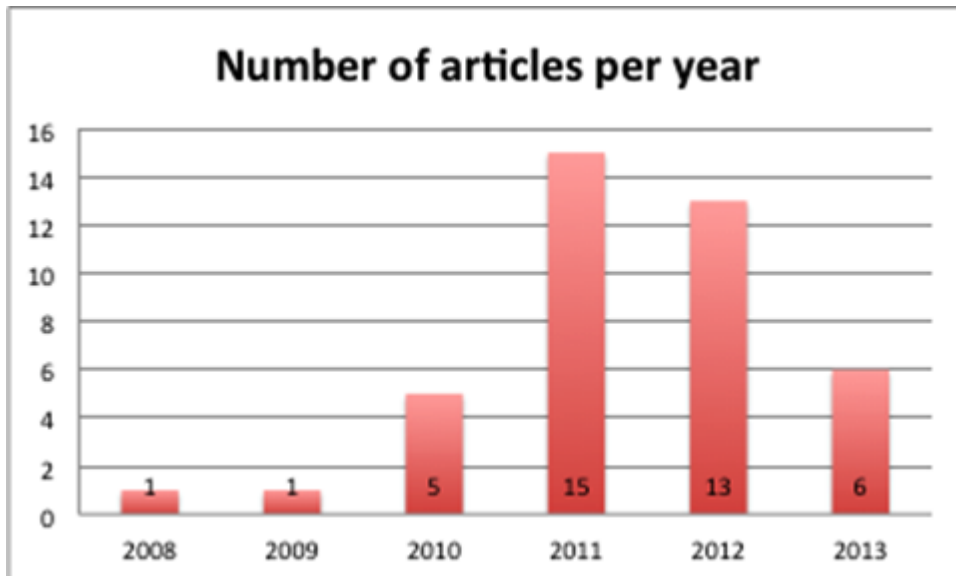


Figure 14: Number of articles

In the Figure 15 are exposed the documents according to the type of methodology used. With the type of methodology we refer to the empirical analysis and the theoretical analysis

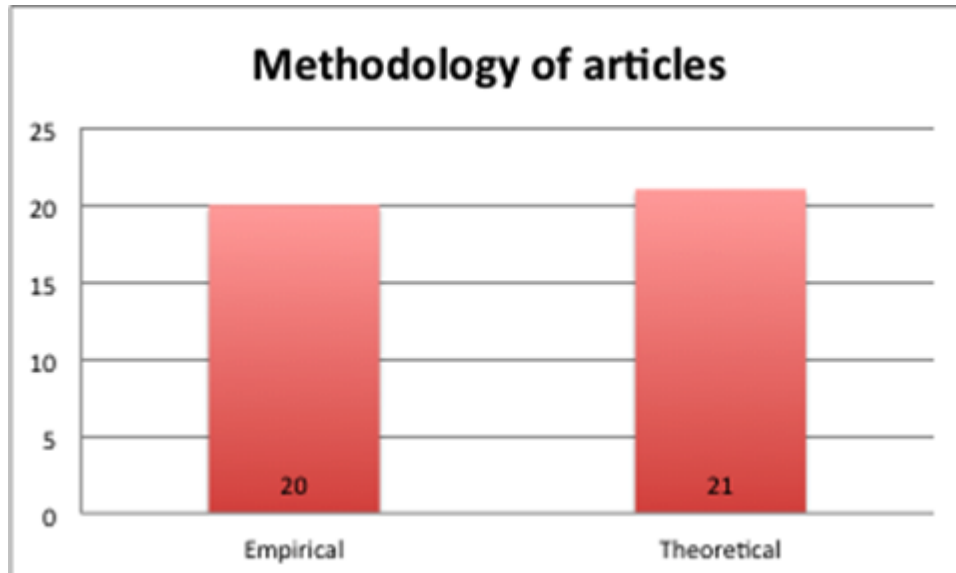


Figure 15: Methodology of articles

In the Figure 16 is shown the countries where the empirical analysis were performed, as we can observe, United States is the country where 38% of the empirical studies were done. Considering that we are talking about Internet tools, the data collected perfectly could come from countries that are not necessarily the same as the country where the study is performed. In the graph we try

to show the country where the studies were applied, in some cases was impossible to determine the exact country in which the empirical analysis was developed, in this case we called “Many countries”.

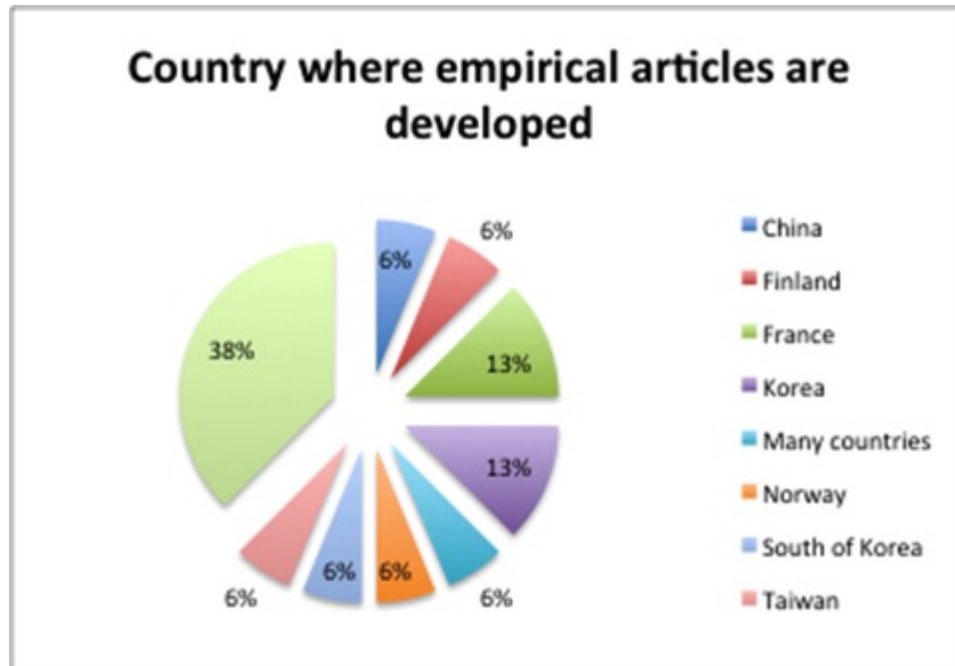


Figure 16: Countries where articles were developed

In the Appendices 2, 3, 4, 5 and 6 are shown the general table in which all the information of the documents is exposed.

## 5. Analysis of Results

In this chapter we analyse different topics that we obtain from the literature review related with the use of Social Media in companies, how to use social media in a company and the evaluation of social media performance in business where we will mention the different tools used for evaluating based on the articles, papers and research consulted.

Firstly, we present a brief historical description of the timeline of social media using in organizations, we explain the fast change of technology in the 20th Century. We figured out that the necessity of interaction with friends and family across long distances has been a concern of humans for centuries. As social animals, people have always relied on communication to strengthen their relationships. When face-to-face discussions are impossible or inconvenient, humans have dreamed up plenty of creative solutions. The roots of social media stretch are far deeper that our imagination. Although it seems like a new trend, sites like Facebook are the natural outcome of many centuries of social media development.

Secondly, we continue extending more ideas, but this time the different uses of social media in companies. All this is according to our main findings in the articles analysed. We are going to explore how entrepreneurs are now using social media as a business tool. Also, we have a looks at the platforms they engage with as a way to reach their prospects, customers, suppliers and trading partners. As we will detail later, social media could be applied in many subjects such as marketing, creation of value, management of interaction between customer and supply chain management.

Finally, after our extent work of examination of every single article which were 42 overall. We present relevant methods for evaluating and measuring social media based on the type of indicators, definitions and models used in these researchers. All this mainly for the sites such as Facebook, Twitter, LinkedIn, YouTube and the blogs.

## 5.1. The background of using social media in companies

Technology began to change very rapidly in the 20th Century. After the first super computers were created in the 1940s, scientists and engineers began to develop ways to create networks between those computers, and this would later lead to the birth of the Internet. The earliest forms of the Internet, such as CompuServe, were developed in the 1960s. Primitive forms of email were also developed during this time. By the 70s, networking technology had improved, and 1979's UseNet allowed users to communicate through a virtual newsletter. By the 1980s, home computers were becoming more common and social media was becoming more sophisticated. Internet relay chats, or IRCs, were first used in 1988 and continued to be popular well into the 1990's. The first recognizable social media site, Six Degrees, was created in 1997. It enabled users to upload a profile and make friends with other users. In 1999, the first blogging sites became popular, creating a social media sensation that's still popular today.

After the invention of blogging, social media began to explode in popularity. For example, sites like MySpace and LinkedIn gained prominence in the early 2000s, and sites like Photobucket and Flickr facilitated online photo sharing. YouTube came out in 2005, creating an entirely new way for people to communicate and share with each other across great distances. By 2006, Facebook and Twitter both became available to users throughout the world. These sites remain some of the most popular social networks on the Internet. Other sites like Tumblr, Spotify, Foursquare and Pinterest began popping up to fill specific social networking niches, see Figure 17, which shows the timeline until 2010.

As we defined before, social media are Internet sites where people interact freely, sharing and discussing information about each other and their lives, using a multimedia mix of personal words, pictures, videos and audio. At these web sites, individuals and groups create and exchange content and engage in person-to-person conversations. They appear in many forms including blogs and micro blogs, forums and message boards, social networks, wikis, virtual worlds, social bookmarking, tagging and news, writing communities, digital storytelling and scrapbooking, and data, content, image and video sharing, podcast portals, and collective intelligence. Indeed, traditional media has become much less use than new social media. For instance, journalistic influence is growing less important, while social networking sites such as Facebook, YouTube and Twitter, provide a constant source of alternative news sources for users. Also, social networking

becomes more popular among older and younger generations, sites such as Facebook and YouTube; gradually undermine the traditionally authoritative voices of news media.

For this reason, since the advent of social media, businesses have used social media strategies to attract customers. Today, social media tools are vital to a business's success.

According to Nielsen company report<sup>13</sup>, social network and blogging sites are nowadays the fourth most popular activity on the Internet; this means that more than two-thirds of the global on-line population visit and participate in social networks and blogs. In fact, social media have pulled ahead of e-mail in the rank of the most popular online activities. Another interesting finding is that social networking and blogging accounts for nearly 10% of all time spent on the Internet.

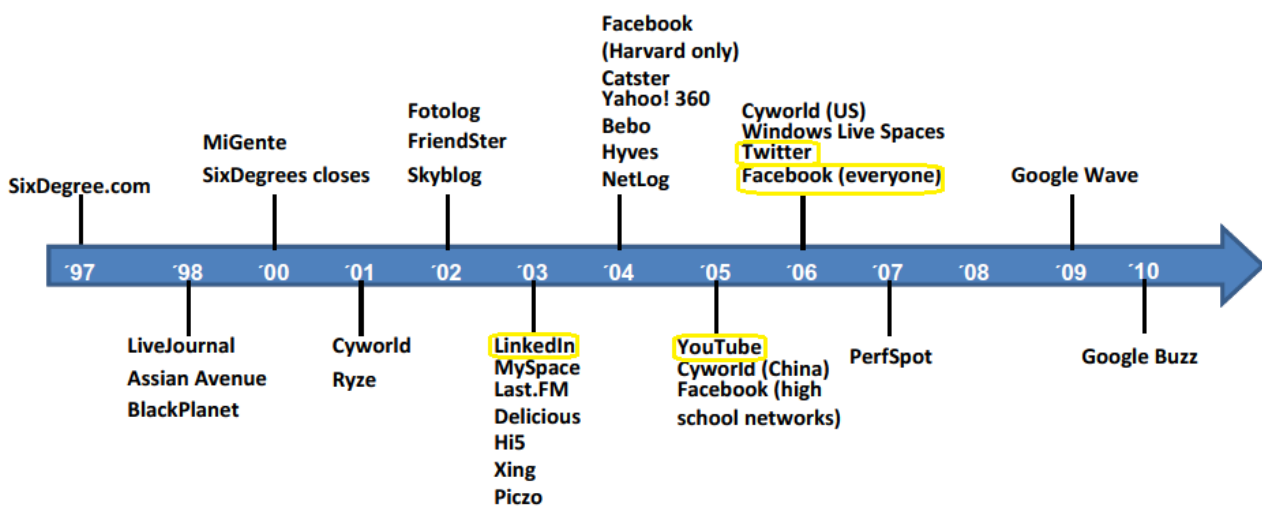


Figure 17: Timeline of Social Media sites from 1997 – 2010  
Source: George Pallis, Marios D. Dikaiakos (2011)

Nowadays, Online Social Networks (OSNs) have become the subject of numerous start-up companies, offering users the ability to create, search and manage their own communities. Besides, there is a tremendous variety of social networking sites, and many of them can be linked to allow cross-posting. This creates an environment where users can reach the maximum number of people without sacrificing the intimacy of person-to-person communication.

<sup>13</sup> Nielsen Company (2009). [http://www.nielsen.com/content/dam/corporate/us/en/newswire/uploads/2009/03/nielsen\\_globalfaces\\_mar09.pdf](http://www.nielsen.com/content/dam/corporate/us/en/newswire/uploads/2009/03/nielsen_globalfaces_mar09.pdf)

To conclude, we can only speculate about what the future of social networking may look in the next decade or even 100 years from now, but it seems clear that it will exist in some form for as long as humans are alive.

## 5.2. How to use social media in a company

In this section we use the information gathered from the articles selected to describe how companies can make use of Social Media and what some characteristics of this new type of ecosystem are. Also some ideas of how to manage (or orientate) the information produced in these platforms.

### 5.2.1. Social Media as a Marketing tool

In the different documents analysed, including theoretical and empirical documents, one thing that is very important to mention is that Social Media could be used as a Marketing tool, internet has the possibility to achieve millions of users in a reduced time and much less costly, also allow real time updates and information about prices and promotions, which generate top-of-mind awareness of companies and can lead for a greater loyalty<sup>14</sup>, in comparison with traditional marketing that will take much more time and it will be more costly to the company to achieve the same quantity of people and the same level of awareness. But this new way of communication does not mean that traditional marketing is going to be replaced for Social Media; while according to Mangold and Faulds<sup>15</sup>, social media has to be considered like a hybrid element inside marketing activities. Thereby companies have access to millions of Internet users and the effectiveness of traditional marketing to achieve a more specific group of people. For example if we just want to develop a marketing activity to CEOs is better to use traditional marketing and have a direct contact with them, instead of using Social Media where the information is observed for a bigger group of people.

In the article of Hanna, Rohm and Crittenden (2011)<sup>16</sup> they comment that is not enough to implement a Social Media marketing campaign if this Campaign is totally independent from their traditional marketing activities. According to Fagerstrøm and Ghinea (2011)<sup>17</sup> is important before

---

<sup>14</sup> Adam Rapp, Lauren Skin (2013). Understanding social media effects across seller, retailer, and consumer interactions.

<sup>15</sup> W. Glynn Mangold, David J. Faulds (2009). Social Media: The new hybrid element of the promotion mix.

<sup>16</sup> Hanna, Rohm and Crittenden (2011). We're all connected: The power of the social media ecosystem

<sup>17</sup> Fagerstrøm and Ghinea (2011). Co-Creation of Value through Social Network Marketing: A Field Experiment Using a Facebook Campaign to Increase Conversion Rate



start with a Social Media to wonder, “*Why is your company considering social network marketing? Who is your company’s targeting segments? What are you going to say in the social media space?*” in order to have a more complete view and strategy of the use of them. Coming back to Hanna, Rohm and Crittenden, in their article is said that spheres of influence are very important because consumers trust more in their own opinions and on their peer instead of companies’ opinions. This empowerment of customers is called “Bottom-up Marketing”<sup>18</sup>. This new way of marketing is due to the very high quantity of connections each day to Social Media. These connections generate a totally new way of interaction among consumers. Now companies do not have to send messages to the consumers, now companies have to create conversations. Messages are not funny, is not interesting and through messages, companies do not even know who consumers are, or care. To generate conversations, Social Media is the perfect location where marketers have to focus their attention. Social Media has a special aspect that traditional media do not have, that special thing is the fast propagation of content, this “viral” activity is important to achieve huge number of contacts in low time. These kinds of connections are between peers by email or instant messages about content that they find interesting or funny. Yung-Ming Li and Ya-Lin Shiu (2012)<sup>19</sup> propose a new methodology to deliver information among users without the problem of being seen as spam. This method consist in evaluate the preferences of consumers in order to decide which information is relevant to deliver, also they identify influential social endorsers, in order to generate a list of people that are interested in the same topic, that list will be delivered jointly with the principal information to the first contact evaluated, the idea is that this person send the message to the people that are in the list, and those at the same time send to others that could be interested in the subject. With this method the information deliver is not considered as spam, because in not distributed randomly to people that is not interested in the subject. This is an excellent approach to generate conversations among costumers by marketers, and spread information through consumers.

In the article of Hanna, Rohm and Crittenden (2011) they show a systematic approach in order to analyse what kind of Social Media or traditional media they have to utilize, because commonly marketers start using the classic pages, like Facebook, Twitter or YouTube without knowing if it is correct, because in reality there exist hundreds of Social Network where the specific target you want to reach is or even they could not be on this sites. Bellow we list the systematic approach

---

<sup>18</sup> Garretson 2008 cited in *We’re all connected: The power of the social media ecosystem* (Hanna, Rohm and Crittenden)

<sup>19</sup> Yung-Ming Li, Ya-Lin Shiu (2012). *A diffusion mechanism for social advertising over microblogs.*

that appears in the article:

- Who is/are the target(s)?
- On which traditional or social media platform the targets live?
- What marketing content (story) does the company want to tell?
- How can marketers propagate or feed this content throughout the ecosystem?

This approach was utilized in the 2010 Grammy Awards to engaging fans, and it was very successful helping Grammy Awards to achieve the higher rating in years, the desired segment increase in 32%.

Social Media also is a good platform where companies can ask for feedback of their products or services to the consumers. Balagué and de Valck (2012)<sup>20</sup> made an experiment to evaluate which is the better way to ask for customer's feedback, asking the interviewed to post their opinions in Twitter, the result obtained are principally two. First is asking for individual comments without standard questions if the importance of the feedback is the quality and not the quantity. And the second is carrying out a collective request of answers with specific questions; in this case the quantity of information will be higher but lower in terms of quality.

In the Table 4 below, there is a summary of this part.

Area	Social Media Tool	Type of use	Author
Marketing	General	Real time updates and information about Prices and promotions	Adam Rapp and Lauren Skin (2013)
	General	Generate top of mind awareness	
	General	Mix traditional media with new social media	W. Glynn Mangold , David J. Faulds (2009)
	General	Traditional marketing strategy has to be align with social media strategy	Hanna, Rohm and Crittenden (2011)
	General	Creation of conversations	
	General	Fast propagation of content	
	General	Systematic approach to understand which social media use	
	General	Bottom-up marketing	Garretson (2008)
	Twitter	Deliver information not seen has Spam	Yung-Ming Li, Ya-Lin Shiu (2012)
	Twitter	Request feedback	Balagué, de Valck (2012)

Table 4: Marketing summary

<sup>20</sup> Balagué and de Valck (2012). Using Blogs to Solicit Consumer Feedback: The Role of Directive Questioning Versus No Questioning

As a summary the use of Social Media as a marketing tool has to consider some important points:

- Social Media and traditional media are not exclusives. Companies have to consider a mix of both in order to achieve better objectives
- Remember not to use Social Media as an independent element of marketing, social media as to be considered in the general marketing strategy of the company
- Consumers do not want to be listeners of the advertisement coming from companies, they want to be part of these campaigns, by evaluating

### 5.2.2. Product Development

Co-creation of value by involving customer in the decisions is something that Alvin Toffler<sup>21</sup> a writer and futurist write in his book “The Third Wave”. In that occasion Alvin wrote that customers do not want to be a passive actor in the consumption process, on the contrary, they want to contribute in the development and creation of new products that they consider meaningful for them. In the empirical experiment developed by Fagerstrøm and Ghinea (2011)<sup>22</sup> in Norway, which tries to increase the conversion rate of applicant for a bachelor courses to applicants that become students. The study consist in create a Facebook page where applicants could find contacts of each bachelor in order to response questions and encourage applicants showing the programs of study, the activities developed in the year and other things related with the Course. The Co-creation began when the participant not only communicate with the contacts, but also with others applicants, sharing the motivations, their technological skills, etc. This experiment concludes with change in the conversion rate from the 43% of applicants that not participate to the Facebook page to 89% of conversion of students that participate. In that way, we can comment that using Social Media with an objective of generate a transparent communication where all people has access and allowing communication also between participant generate a higher sense of being part of a group. In our opinion, companies not only of services can take advantage of the creation of spaces where possible consumers can interact with the company and with others consumers.

Additionally, Singh and Sonnenburg (2012)<sup>23</sup> propose the co-creation of a storytelling. Storytelling, in marketing campaigns, refers to the fact that companies create a story behind the

---

<sup>21</sup> Alvin Toffler (1979). “Book: The Third Wave” cited by Fagerstrøm and Ghinea (2011)

<sup>22</sup> Fagerstrøm and Ghinea (2011). Co-Creation of Value through Social Network Marketing: A Field Experiment Using a Facebook Campaign to Increase Conversion Rate

<sup>23</sup> Sangeeta Singh, Stephan Sonnenburg (2012) Brand Performances in Social Media

presentation of his brand or a specific product to create a certain reaction in consumers. Years ago, storytelling was very similar to the theatre, in which consumers went and watched the story that the director (companies) wants to show, at this moment the spectators did not played any role in the story, they just were simple observers. Nowadays, the situations is different, storytelling is more similar to an improvisation theatre, in which both the company and the consumers create the story together, the company propose a theme and the consumers contribute by co-creating the story with the organization. The change in the way companies create the stories of their brands and products has change due to Social Media emergence, through which consumers have the possibility to interact with the companies and also with other consumers. In this way changing or complementing the stories that organization wants to share to the market. The model in the Figure 18 below shows how companies and consumers co-create the story. N(1) refer to the first propose for part of the company, P(1) is the contribution to the story provided by the participant, this part of the story has to be corroborated by the other participants (brand owners or consumers), after they accept this part of the story, this part enter to the on-going co-created story.

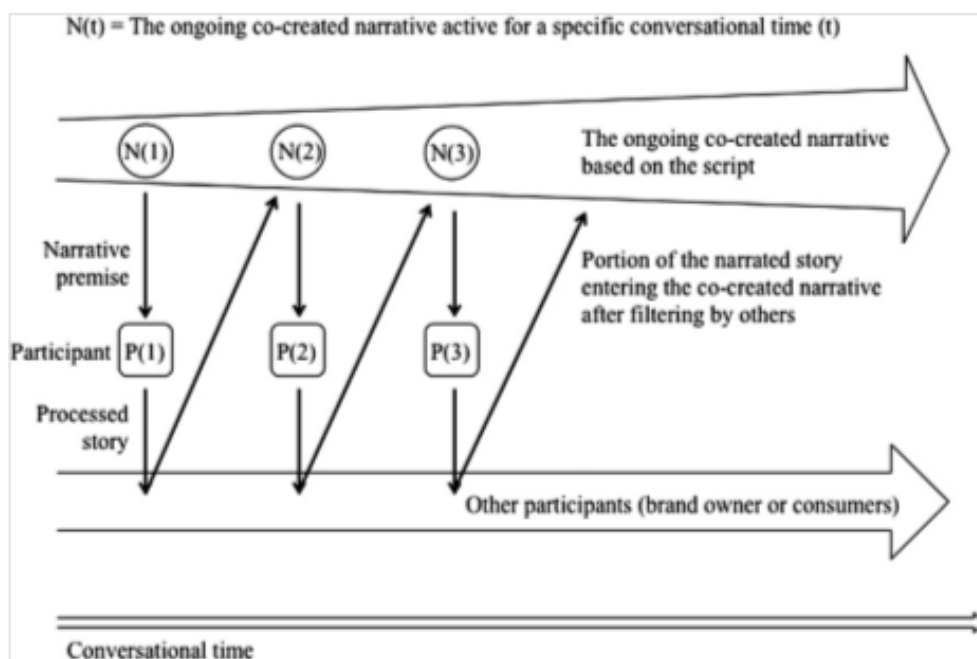


Figure 18: The co-creation of the on-going brand narrative  
**Source: Sangeeta Singh, Stephan Sonnenburg (2012)**

One important consideration of this proposition is that companies not only have to be good storytelling, but also story listeners. Other important factor that has to be managed is “Tension”. Tension is a factor that allow participants to be emotionally involved in the story, and with the

correct use of tension, the consumers will be encourage to participate in the storytelling process. The problem here is that companies have to be very carefully with the tension that they want to create, especially if they are huge companies with more than one product and those products wants to achieve two different kinds of consumers. In relation to this problem Singh and Sonnenburg showed in the paper the case of Dove and his campaign of “Real Beauty”. In this campaign Dove wants try to create a tension of “beauty without artifice”, but customers also realize that Dove belongs to Unilever; the same company has his product Axe with a totally different tension “improve men’s performance in the meeting game” which create a conflict in the strategy of Dove products. Before Social Media emergence, consumers did not know that those two products belong to the same organization and in that case, they could create the brand vision however they want. But Social Media change everything, and in the case of Unilever, consumers distort they image by changing the campaign of Dove from “Talk to your daughter before the beauty industry does” to “Talk to your daughter before Unilever does”. That way the tension that a company wants to create has to be in correlation with the tension of its other products, which does not mean that both products have to use the same tension, just finding equilibrium among them. The summary can be seen in Table 5.

Area	Social Media Tool	Type of use	Author
Product Development	Facebook	Co-creation of value	Fagerstrøm and Ghinea (2011)
	General	Co-creation of Storytelling	Singh and Sonnenburg (2012)
	General	Creation of tension	

Table 5: Product Development summary

### 5.2.3. Communication

Mangold and Faulds (2009)<sup>24</sup> also mention in their article the fact that the creation of social media allow consumers not only to communicate with companies but also with other consumers, this kind of communications cannot be controlled directly by managers, but they show a series of possibilities to shape and influence in this conversations among consumers. The first way through which companies can manage these conversations is the creation of a network platform where people can talk with others with same interest. With the creation of this networks platforms is easier for managers to control the information that is been traded among consumers and take

<sup>24</sup> Mangold and Faulds (2009). Social media: The new hybrid element of the promotion mix.

advantage of this. The second possibility is the use of blogs and other Social Media tools to engage customers, according with what they said in his article, *“Consumers feel more engaged with products and organizations when they are able to submit feedback”*. This feedback could be in form of criticism, accolades and helpful suggestions, the importance here is that consumers have the possibility to comment the information given by the company; this will generate a sense of transparency of the information provided by the organization. Other thing that is important to provide is high quantity of information about products, services and also the organization itself, because consumers like the feeling of knowing all about them at the moment of take a decision. Nowadays consumers prefer to by a product from a brand not so popular if the characteristics that the product provide are equal or better from a products from better brands. Other alternative that manager can do is to provide exclusivity. Exclusivity means that people belonging to a specific group is treated different from people that are not part of this group. Consumers like to be treated differently; this is possible by giving some benefits to consumers or Social Media Fans. For example, one of these benefits could be an extra discount of 5% for those who are already clients of the company. All these points could be used by managers to have a better control of the conversation, this do not mean that people will comment what you want to ear, but it will be easier to the managers to find possible complains and try to solve any inconvenience that this person can have or give the information that they could need.

Please refer to the summary shown in Table 6.

Area	Social Media Tool	Type of use	Author
Communication	General	Communicate with consumers and among them	W. Glynn Mangold, David J. Faulds (2009)
	General	Creation of network platforms	
	General	Use of social media to engage	
	General	Customers can give feedback	
	General	Provide information	
	General	Provide exclusivity	

Table 6: Communication summary

#### 5.2.4. Use of Social Media in the Supply Chain

Using social media people can interact with each other and through the supply chain (Adam Rapp, Lauren Skin (2013)<sup>25</sup>. But why use Social Media in the Supply Chain? According to Daniel E.

<sup>25</sup> Adam Rapp, Lauren Skin (2013). Understanding social media effects across seller, retailer, and consumer interactions.

O’Leary (2011)<sup>26</sup>, in the supply market occurs something very similar to a common market. The information is not totally available and the possibility of suppliers is much extended. Using social media increase the possibility of suppliers to inform their consumers of events, promotions, incentives and industry events, and also allow companies the possibility to request for information about products, discounts, etc. Adam Rapp and Lauren Skin (2013)<sup>21</sup> propose that more the suppliers use Social Media, the retailers will increment the use of these platforms, and this increment is due to a contagion effect. *“Contagion theory suggests that individuals or firms engage in behaviours because of their interactions with other individuals or firms who are engaged in similar behaviours”* (Adam Rapp and Lauren Skin 2013)<sup>21</sup>. According to O’Leary there are five reasons why supply chain has to use Social Media. Firstly, the use of Social Media information could be integrated to supply chain transaction processing system. For example, integration with new technologies likes RFDI (Radio Frequency Identification). Secondly, another reason is to create a better relationship among the companies in the supply chain. In the same way as B2C markets before Social Media, supply chain was characterized by communication in one direction, but recently, Social Network has help to change how participants in supply chain communicates each other. Thirdly, is related with the information and the knowledge gathered from participants that use Social Media that could provide information necessary to shape information or knowledge of participants (e.g. Reputation), according to Adam Rapp and Lauren Skin (2013)<sup>21</sup>, the use of Social Media by retailers has a direct influence on retailers’ performance and supplier brand performance. Continuing with the reasons why supply chain has to use Social Media according to O’Leary, the fourth point is associated with the possibility to predict some events from the information gather in Social Media. Finally, Social Media affects the velocity with which the information could be created and processed.

Some examples that we can mention of the use of Social Media in the Supply Chain that appear in the article of Daniel E. O’Leary are:

- The use of twitter to communicate information regarding to a shipments of merchandize, including in the tweet the information regarding to the lot and the time at which was dispatched. The use of this information can be useful to coordinate deliveries especially when the freight belongs to more than one company. This kind of information could be seen as a excessively free in the sense that all people has access to it, but in our opinion could be very

---

<sup>26</sup> Daniel E. O’Leary (2011). The use of social media in the supply chain: survey and extensions

useful specially when the companies that will receive the products are not connected with the same information system, through which the supplier can communicate directly.

- On the other hand, the use of twitter can help to anticipate problems in the road like accidents, repairs or deviations. With this information in advance, they can react by changing the route or giving on time information about the delivery time. For instance, if they will have a delay in the expected time of delivery.
- Also, twitter messages can be uses to deliver information about new tariff of shipments.
- Other use of Social Media is the connection with RFID, the use of this technology can provide information in real time about the of trucks that are delivering, for example each time the camion arrive to a delivery point, an automatic message in twitter can be sent in that way exist information about the position and time at which the delivery was done.

Even if there are good ideas to implement Social Media in the Supply Chain, nowadays companies do not have a high intension to start implementing these new technologies in its daily activities. The summary is detailed in Table 7.

Area	Social Media Tool	Type of use	Author
Supply Chain	General	Interaction through the supply chain	Adam Rapp and Lauren Skin (2013)
	General	Contagion effect	
	General	Strong influence in retailers' performance and suppliers' brand	
	Twitter	inform about change in prices, events and promotions	Daniel E. O'Leary (2011)
	Twitter	Companies can request for information	
	Twitter	Information could be integrated to supply chain transaction processing	
	Twitter	Creation of better relationship among companies inside the supply chain	
	Twitter	Prediction of possible events	
	Twitter	Increase velocity through which information is created and processed	

Table 7: Supply Chain summary



### 5.3. Evaluation of social media performance in the company

In this part of our analysis of results, we going to present and describe our main findings in relation to the different ways to evaluate the social media performance in companies that are based on articles reviewed.

For this description we are going to present two aspects. Firstly, we introduce how the relevant contents of social media can be traced in order to measure by using indicators. In the second place, we present the main instruments found according to the papers analysed, which are used to gather information or data.

#### 5.3.1. Social Media measurement

The evaluation of Social Media means the tracking of any relevant social media content regarding a certain goal. It could be done by using a free or paid monitoring tool as specialized program. For example, with social analysis software, behaviours of users can be measured and conclusions can be drawn. The gained insights can be linked to business goals to check whether the set benchmarks have been reached or if a campaign has had the desired impact. This process could involve analysing customer behaviour for the purpose of improving product quality, satisfying emerging needs or offering a faster and cheaper customer service, see Figure 19.

On the other hand, the Social Media performance can be evaluated internally within a company such as the use of social media platforms by employees and whether it reduces the costs for phone calls, researching expertise or any other kind of “distractions” from a regular workflow. At a higher level, measurement of social media performance is about improving a company's entire business. Changes and trends can be noticed early enough to be able to react to and benefit from. At large companies, business cases can be gathered and stored to make the knowledge and expertise available for every employee, anywhere, at any time.

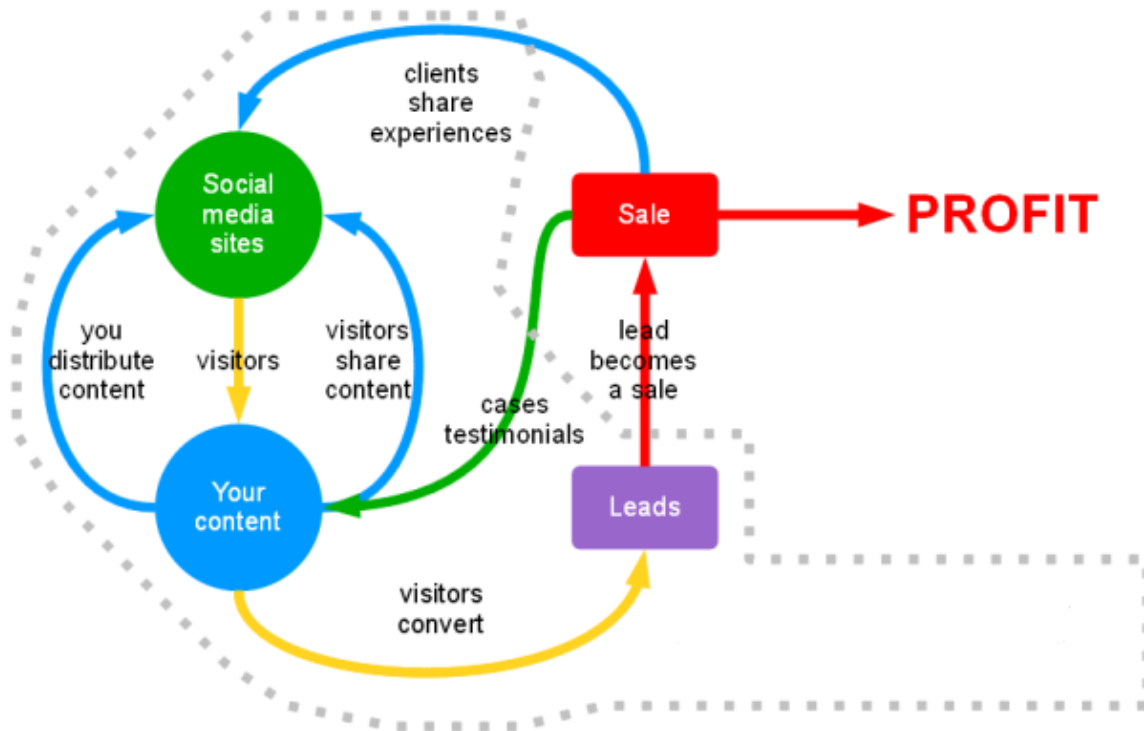


Figure 19: Effects of Social Media on company  
 Source: [www.dreamgrow.com](http://www.dreamgrow.com)

Now, we ask ourselves: can you employ traditional methods of evaluation – surveys, focus groups and key informant interviews – with social media? The answer is yes and no, all this will be shown later and according to our main findings from the articles analysed.

The constant change and developmental nature of social media environments means that there is a limited amount of control for the evaluators, which changes the utility of many traditional methods of evaluation. Methods and designs that require high-levels of standardization and control are often suited to social media environments, particularly randomized controlled trials. Much of the study designs that work well come from fields like anthropology, sociology and design. Methods that have flexibility such as qualitative interviewing can be useful for exploring the user experience and understanding what kind of influence conversations using social media have on perceptions, knowledge or activity. On the other hand, quantitative methods such as surveys can be useful if they are collected and analysed quickly and placed in appropriate context. However, one of the big challenges with survey data and social media is that the references to the environment in which dialogue takes place changes quickly and that without proper contextual data, the findings may be difficult to interpret. We strongly believe that, in general, companies' aim at increasing their ROI (Return on Investment) by using Social Media tools as is shown in Figure 20 below.



Figure 20: Effects of Social Media on company  
 Source: [www.intersectionconsulting.com](http://www.intersectionconsulting.com)

In addition to this, we show in Figure 21 below an alternative communication model that is somewhat more intuitive and in tune with social media measurement that point to maximize the ROI. The following approach displays influence as a part of the process of determining ROI:

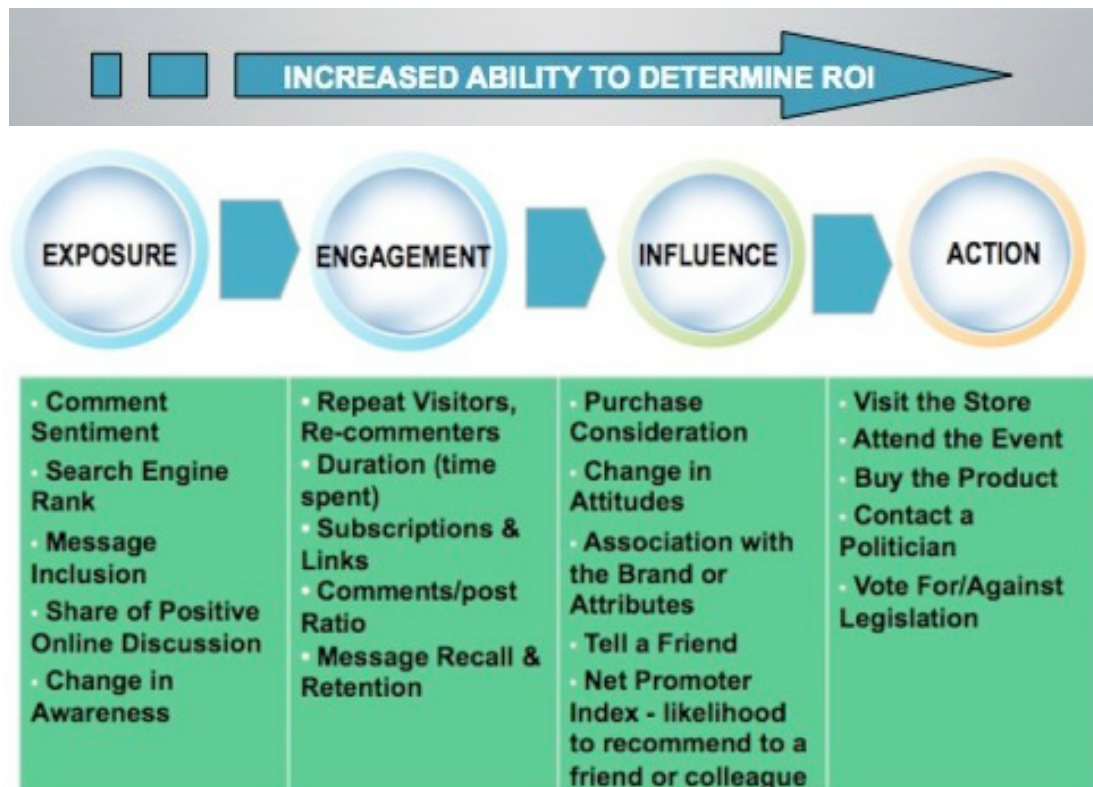


Figure 21: Role of influence in Social Media activities  
 Source: [metricsman.wordpress.com](http://metricsman.wordpress.com)

Next, we present the Table 8 that shows the list of KPIs found in the different articles. In this point of the analysis, we are going to describe in details each of them according to there are of influence as listed in the table below.

Area of Influence	Performance	KPI	Social Media	Metrics	Author
Penetration of Social Media	Posts	Number of posts	Facebook, Twitter YouTube	Number of posts per month	Brenda Laurel (2003)
		Nature and content of posts	Facebook, Twitter YouTube	Nature and content of posts	Brenda Laurel (2003)
		Time and date of post	Facebook, Twitter YouTube	At what time and the date the post was made	Brenda Laurel (2003)
		Relation of posts to one another	Facebook, Twitter YouTube	Relation of posts to one another	Brenda Laurel (2003)
	Replies	Number of replies	Facebook, Twitter YouTube	Number of replies per month	Brenda Laurel (2003)
		Nature and content of replies	Facebook, Twitter YouTube	What a kind of content the replies have and their nature	Brenda Laurel (2003)
	Source	Content source	Facebook, Twitter YouTube	Content of source	Brenda Laurel (2003)
		Relation between posters	Facebook, Twitter YouTube	Relation between posters	Brenda Laurel (2003)
Performance	Stocks	Stock performance	Social Media in general	Sentiment Analysis: Empirical technique to determine the sentiment of a speaker or a writer with respect to some specific topics	Yang, Wenjing and Qing (2013)
Revenues and Cost Savings	Financial	ROI (Return on Investment)	Facebook, Twitter LinkedIn, YouTube	$ROI = (Gain - Cost) / Cost$	Nuria Lloret Romero (2011)
Brand Perception	Branding Influence	Analysis of online reputation	Facebook, Twitter LinkedIn, YouTube	Number of time that a bran in mention in the web per month	Nuria Lloret Romero (2011)
		Action Analysis	Facebook, Twitter LinkedIn, YouTube	Average number of activities made per user in brand's website per month	Nuria Lloret Romero (2011)
Engagement Level	Engagement	Mentions	Facebook, Twitter LinkedIn, YouTube	Number of times that a word is mentioned in social network	Nuria Lloret Romero (2011)
		Interactions	Facebook, Twitter LinkedIn, YouTube	Number of comments between users and social media	Nuria Lloret Romero (2011)
		Surveys	Facebook, Twitter LinkedIn, YouTube	Set of questions regarding to user's satisfaction	Nuria Lloret Romero (2011)
	Meta Data	Uploader	YouTube	User name who uploaded the video	Cheng, Dale and Liu (2008)
		Date	YouTube	Date in which the video was uploaded	Cheng, Dale and Liu (2008)
		Category of video	YouTube	Type of category in which the video belong	Cheng, Dale and Liu (2008)
		Lenght of video	YouTube	Duration in minutes of the video	Cheng, Dale and Liu (2008)
		Number of views	YouTube	Number of user who watched the video per month	Cheng, Dale and Liu (2008)
		Number of ratings	YouTube	Position rank which user give to video (from 0 to 5)	Cheng, Dale and Liu (2008)
		Number of comments	YouTube	Number of comments received per month	Cheng, Dale and Liu (2008)
		List of related videos	YouTube	List of related videos	Cheng, Dale and Liu (2008)
	Popularity	Fans	Facebook	Natural logarithm of the number of Facebook fans	Kirk Plangger (2012)
	Brand Community	Brand Influence	Facebook and Twitter	Binomial logistic regression model with coefficients	Kirk Plangger (2012)
		Size Influence	Facebook and Twitter	Binomial dependent variable	Kirk Plangger (2012)

Table 8: List of KPIs

### Penetration of Social Media

In this first place, according to Brenda Laurel (2003)<sup>27</sup> we can add the ethnography methods for evaluating Social media. These create a culture in each setting in which it is deployed. For instance, there is a culture that takes place on a Facebook page, a Twitter feed, and through a YouTube channel. This cultural space is therefore highly amenable to evaluations that draw on research methods that focus on culture like ethnography. Specifically, observation and conversation analysis are two of the methods highlighted within ethnography. We can present the following:

- Number of posts
- Nature and content of the posts
- Number of replies or use of tags
- Nature and content of the replies
- Content source (e.g., video, audio, web link)
- Time and date of post
- Relation between the posters or referrers to one
- Relation of posts to one another (e.g., cross posting from other platforms)

Regardless of the methods are employed; we personally think that the emphasis on utilization of findings is critical; otherwise the data will have little meaning when presented outside of its context. Social media metrics are not amenable to high-level planning unless used to guide strategy.

Below, we present our main findings from all the articles analysed during our literature review, all this in relation with evaluation of social media in organizations.

### Performance

For the performance as area of influence, we found a very specific example within the study written by Yang, Wenjing and Qing (2013)<sup>28</sup> which suggests that Social Media effects on firm stock performances by applying the advanced sentiment analysis which is an empirical technique that aims to determine the sentiment of a speaker or a writer with respect to some specific topics such as Blogs, Twitter, Facebook and others. This research claims that Social Media sentiment has a strong impact on firm stock performances. Specifically, the article mentions that overall social

---

<sup>27</sup> Laurel, Brenda (2003). Design research: methods and perspectives

<sup>28</sup> Yang, Wenjing and Qing (2013). The impact of social and conventional media on firm equity value: A sentiment analysis approach

media sentiment has a stronger impact on firm stock performance than conventional media (newspaper, magazine, radio and TV). For instance, Twitter has a significant negative effect on returns and but not a significant effect on risk.

### Revenues and Cost Savings

According to the research presented by Nuria Lloret (2011)<sup>29</sup>, ROI is defined as a simple indicator of return on investment; it involves the direct costs and revenues of each transaction. For this reason, doing a ROI analysis can help an institution to evidence how the cost savings inherent in using Social Media as opposed to former marketing tools. However, this interest involves a great risk of simplification. The author also mention that a myth has grown that Internet can easily be measured. While it is true that metrics such as web visits, fans or the number of comments are easy to obtain, on the basis of only this data it would be necessary to jump leaps and bounds to obtain what ROI aims at: an increase in revenues or cost savings. For example, it would only be possible to analyse cost savings, whereas increased revenue might be comparable with an increased number of users or number of services per users, loyalty, etc. Additionally, the paper affirms that to measure ROI a process should not be analysed from the beginning, but rather from the end. This does not mean monitoring the impact of our publications until they translate into an increase in users or the use of services, but rather determining the reasons for such increases such as the motivation of users. This is a business intelligence task carried out using market research techniques (interviews, surveys, focus groups, etc.) and incorporating Social Media into the user management system. Such as task will enable the organization to determine what issues are influencing its users and the extent to which the communication they have received through the social networks has influenced their decision to use these services rather than others. The analysis we use to measure ROI can follow these lines:

- The consumption by previous users can be compared with that of current arrivals on the network.
- Comparisons can be made between the behaviour of a user prior to following us on social media and after doing so.
- The extent to which the success of new developments or events has improved after being communicated in social networks can be measured.
- The influence of brand perception on users' consumption and that extent to which the new media have changed this perception can be measured.

---

<sup>29</sup> Nuria Lloret Romero (2011). ROI: Measuring the social media return on investment in a library

In the case of cost savings the analysis required is simpler. Of course, each specific case would need to be evaluated, but for instance the following can be done:

- The cost of resolving incidents using Social Media.
- The cost of creating web traffic through advertisements can be compared to doing so using Social Media.
- Surveys through social networks (user satisfaction surveys, etc.)

### Brand Perception

In the same paper presented by Nuria Lloret (2011)<sup>30</sup>, it is mentioned that Social Media activity leads to returns of all kinds, and it is surely more interesting to know the intermediate levels of return and for each of these levels we can find some indicators. Analysing for example, how the perception of a brand by certain number of potential users' changes as a result of social media activity is essential for determining whether the objectives of social media are being met.

This can be done through an analysis of online reputation and an action analysis that give as indicator the one called branding influence. There are different levels of return and each one requires a certain type of analysis as summarized in Table 9.

### Engagement Level

In relation to engagement level, Nuria Lloret (2011)<sup>29</sup> also says that the type KPIs are mentions, interactions and surveys all these can be applied for social media in general. Please also refer to Table 9 below.

Level	Indicator	Analysis
Direct	Engagement	Mentions RT Interactions (etc.)
Intermediate	Branding Influence	Online reputation Action analysis 2.0 Research
Final	ROI	Business intelligence Market studies Social research

Table 9: Returns levels in Social Media  
Source: Nuria Lloret Romero (2011)

<sup>30</sup> Nuria Lloret Romero (2011). ROI: Measuring the social media return on investment in a library

In addition to this, we also found a relevant case in the paper published by Cheng, Dale and Liu (2008)<sup>31</sup>, which describe ways to evaluate and measure YouTube videos. The study argues that it is important to analyse focus on the access patterns and social networks in YouTube due to it provides significant indicators (called meta-data) such as user who uploaded it, date when it was uploaded, category, length, number of views, number of ratings, number of comments, and a list of “related videos” as shown in Table 10. The related videos are links to other videos that have a similar title, description, or related tags, all of which are chosen by the uploader.

<b>ID</b>	2AYAY2TLves
<b>Uploader</b>	GrimSanto
<b>Added Date</b>	May 19, 2007
<b>Category</b>	Gadgets & Games
<b>Video Length</b>	268 seconds
<b>Number of Views</b>	185,615
<b>Number of Ratings</b>	546
<b>Number of Comments</b>	588
<b>Related Videos</b>	aUXoekeDIW8, Sog2k6s7xVQ, ...

Table 10: Meta-data of a YouTube video  
Source: Cheng, Dale and Liu (2008)

While in the research of Kirk Plangger (2012)<sup>32</sup>, which talks regarding the particular case of Facebook, mention that Facebook can be measured through the concept of popularity. For this evaluation is used a special methodology which consists in the natural logarithm of the number of Facebook fans. In addition to, a binomial logistic regression model with coefficients was constructed to determine what factors influence firms to commit to brand community development. As binomial Dependent Variable (DVs), the Facebook and Twitter variables were used. In the case of Facebook, the model was used to determine the effect of the size or the popularity of the online Facebook community on the organization. To set some examples, we can mention that the results showed that the highly differentiated entertainment industry is much more likely to engage in social network development than any other industry group in both the Facebook and Twitter worlds. Moreover, the automotive and telecommunications industries are

<sup>31</sup> Cheng, Dale and Liu (2008). Characteristics and Potentials of YouTube: A Measurement Study

<sup>32</sup> Kirk Plangger (2012). The power of popularity: how the size of a virtual community adds to firm value



also more likely to engage in Twitter development. The retail sector showed positive coefficients for both Facebook models, but with Twitter, the coefficient is negative.

Last but not least, we emphasize that evaluation efforts are most effective when they are integrated into strategy. By linking evaluation with strategy it is more likely that an evaluator or program leader will be able to make sense of the data. For example, if a strategy is using multiple platforms to engage an audience and encouraging “cross-platform” conversations (e.g., someone posts a campaign video from YouTube on the campaign’s blog).

### 5.3.2. Instruments to collect data

Reyneke, Pitt and Berthon (2011)<sup>33</sup> propose in their study that companies can evaluate social media by gathering brand visibility data in order to know how sociable the companies are. For this reason, it would be important for those who manage brands to have a good idea of what is being said about these brands in social media, how frequently it is being said, and in what particular media it is being said. This type of data would give the brand manager an indication of the “visibility” of the brand in social media. In most cases, the brand manager would be interested in the social media visibility of their own brand, but would probably also want to make comparisons with the performance of similar or competitive brands.

The data could be gathered in one of two ways. First, someone could be given the responsibility of trawling through vast amounts of data in the vast numbers of posts on the various social media platforms and counting and documenting this information. Alternatively, the data could be obtained from a service that regularly trawls through social media electronically, and compiles and counts a brand’s visibility. One of these types of services is a web site called *How Sociable* ([www.howsociable.com](http://www.howsociable.com)). *How Sociable* is a free service that tracks the visibility of any brand in 32 different social media, providing a score for the visibility on each, as well as an overall “visibility” score. Simply by entering the brand name into a check box on the web site, the user can obtain an overall visibility score and as well as visibility scores across the 32 different social media sites.

The overall visibility score assigned to a brand provides a quick way to compare the visibility of one brand to another. For instance, in Figure 22 shows the How Sociable brand visibility scores of ten different well-known brands recently calculated on How Sociable according to the annual

---

<sup>33</sup> Reyneke, Pitt and Berthon (2011). Luxury wine brand visibility in social media: an exploratory study

Interbrand report on brand values, namely Coca Cola, IBM, Microsoft, GE, and Nokia ([www.interbrand.com](http://www.interbrand.com)), and also five well-known social media brands, namely Google, Facebook, Twitter, YouTube, and MySpace.

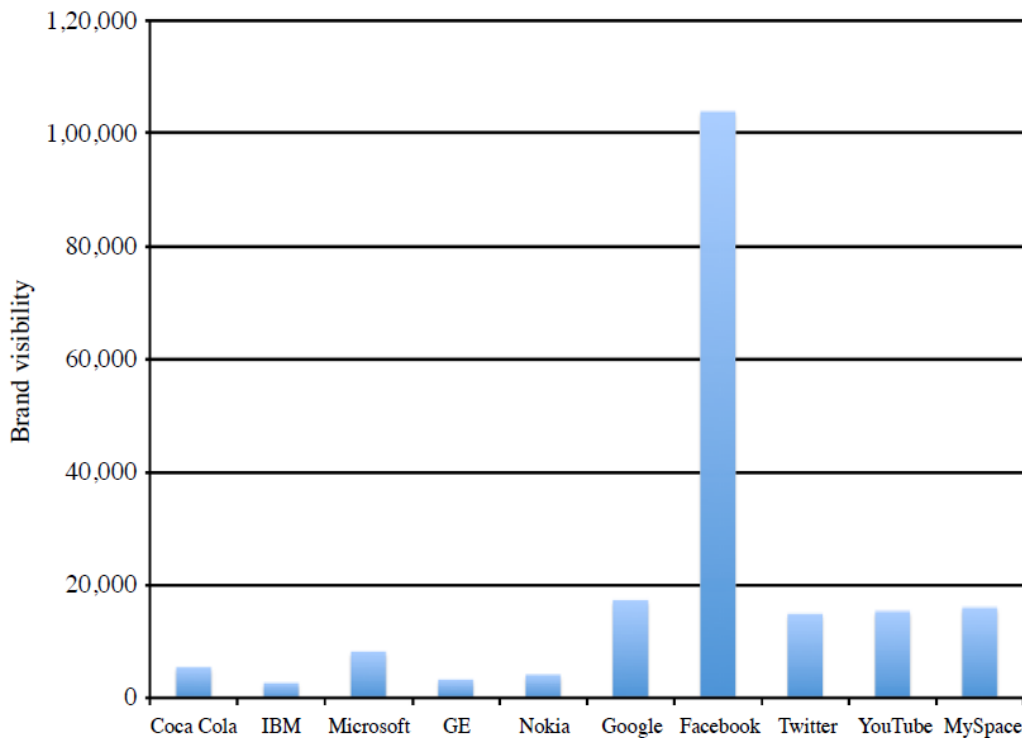


Figure 22: Illustration of brand visibility scores  
Source: Reyneke, Pitt, Berthon (2011)

As is shown in the graphic above, the most valuable brands are not always the most visible in social media - For example, Coca Cola is less visible than Microsoft - that social media brands, perhaps not unexpectedly are far more visible than the most valuable brands; and, that Facebook is many magnitudes more visible than all other brands.

The research of Chen, Fay and Wang (2011)<sup>34</sup> argues that Social Media is can be used as platform by consumers to divulge their personal evaluations of purchased products and thus facilitate word-of-mouth communication. This study claims that each marketing variable has different relationships with the volume and valence of online postings such as product quality, which has a positive correlation with the number of positive online reviews, provides important implications for markets. The evaluation of this can be done using overall performance rating in consumer reports, more specifically number of posting (counting variable by employing a negative binomial

<sup>34</sup> Chen, Fay and Wang (2011). The Role of Marketing in Social Media: How Online Consumer Reviews Evolve

estimation method that allows the distribution variance and mean to be different) and overall rating (using regression coefficients). On the other hand, online consumer reviews can benefit firms that produce high-quality products, as they can generate product awareness without large expenditures on advertising and promotion.

Hence, with the increasing use of emerging technologies such as the mobile web, consumers have started to participate in other different social media (e.g. Twitter, Facebook). The evolving pattern between marketing variables and consumer online posting behaviours observed in the last decade can shed important insights for social-media marketing.

In the paper presented by Balagué and de Valck (2012)<sup>35</sup> we could find that for the case of blogs as Social Media the role of questioning is key determinant in order to receive customer's feedback in terms of two dependent variables. The first is feedback quantity, which encompasses: the volume of posts and the number of distinctive topics addressed. To measure volume, the total number of posts by each participant is counted, also non-topical posts, such as administrative or technical questions are eliminated. To measure the number of distinctive topics addressed, codes are used so as to identify the range of topics evoked. On the other hand, the second dependent variable is feedback quality, or how useful posts were, as well as how much self-disclosure occurred. For this, usefulness was defined as product-related feedback. For instance, types of content such as product features (shape, colour, price); an insight into product usage (effect after consuming, description of a typical consumer); a suggestion for improvement (improvements to the product); or competitor-related feedback. To avoid the effect of different volumes of posts per protocol, we measured feedback quality as the percentages of useful posts and self-disclosure posts. In conclusion, blogs as Social Media have multiple possibilities for improving online customer environments, as well as new ways to maximize the quantity and quality of consumer feedback that clearly help to improve the performance of the organization.

On the other hand, the article of Paul Greenberg (2011)<sup>36</sup> say about tool used to measure how the effects of the attitude propagate through social networks and communities. One example of an application that is used in the market at present is SAP's Twitter analysis tool that finds customer service discussions around a particular company or topic on Twitter and measures how positive or negative the discussion around the idea or company is. Social media provides a rich source of

---

<sup>35</sup> Balagué and de Valck (2012). Using Blogs to Solicit Consumer Feedback: The Role of Directive Questioning Versus No Questioning

<sup>36</sup> Greenberg (2010). The impact of CRM 2.0 on customer insight

information, with over 100,000,000 blogs and innumerable threaded discussions in forums in addition to public communities and external social sites available. Social CRM tools focused on media monitoring are used primarily for marketing and public relations. For example, Radian6<sup>37</sup> will monitor blogs, social networking sites, forums, video and image sharing sites, microblogging sites, discussion groups, opinion and review sites, and top mainstream media. Their solution tracks topics, influencers, and customer engagement. There is a trend toward using social media monitoring tools to track customer service as well. Companies like Comcast and Dell use the microblogging tool Twitter to track customer problems that are being discussed in the “Twitterverse”.

To sum up, we can say that Social Media evaluation has logically followed its usage in companies. However, numbers do not capture the entire story. While there are many different tools that will help the tracking and aggregate tweets, blog posts and comments (positive and negative), the question still remains how we will arrive at a more holistic view of the value of social media. It is important to highlight that any evaluation of social media should be embedded in an overall strategy for social media and how your evaluation will happen and at what intervals. In some ways, gathering feedback about your engagement in social media and with others is easy. Many of the tools are free and waiting to be used. Social media evaluation is an important issue and must be designed properly.

---

<sup>37</sup> Radian6 is a social media monitoring tool, which aids companies in engaging actively with its customers through social media platforms  
<http://marketingbrewed.wordpress.com/2012/01/14/what-is-radian6/>

## 6. Conclusions

- The review shows that Social Media strong influences on company's outcomes and it might help to increase the effectiveness of the organizational performance. Most of the studies have showed the great importance of evaluating social media and organization's performance; that is why we strongly believe that companies must measure the performance of the use of social media in their activities.
- Thanks to the new environment created in relation with new era customers is such a big opportunity for companies in order to generate loyalty and brand positions in current and new markets by creating strategies that include customers in the decision making for new products and services.
- Spite of the fact that traditional media has become much less use than new social media tools; companies should consider an integral strategy which means to have a mix of traditional and new media overview. In this way, organizations will have the possibility to reach their target audience with fewer efforts.

## 7. References

- Adam Rapp, Lauren Skinner Beitelspacher, Dhruv Grewal, Douglas E. Hughes (2013). Understanding social media effects across seller, retailer, and consumer interactions.
- Asle Fagerstrøm, Gheorghita Ghinea (2011). Co-Creation of Value through Social Network Marketing: A Field Experiment Using a Facebook Campaign to Increase Conversion Rate.
- Balagué, de Valck (2012). Using Blogs to Solicit Consumer Feedback: The Role of Directive Questioning Versus No Questioning.
- Bardhi, F., Rohm, A. J. and Sultan, F (2010). Tuning in and tuning out: media multitasking among young consumers.
- Bebo White, Irwin King, Philip Tsang (2011). Social Media Tools and Platforms in Learning Environments.
- Bimberg J.G, Snodgrass C. (1988). "Culture and Control, Accounting, Organizations and Society".
- Bong-Won Park, Kun Chang Lee (2010). Effects of Knowledge Sharing and Social Presence on the Intention to Continuously Use Social Networking Sites: The Case of Twitter in Korea.
- Brian Clifton (2010). Advanced Web Metrics with Google Analytics.
- Burby & Atchison (2007). Actionable Web Analytics: Using Data to Make Smart Business Decisions.
- Chen, Fay, Wang (2011). The Role of Marketing in Social Media: How Online Consumer Reviews Evolve.
- Chulmo Koo, Yulia Wati, Yulia Wati (2011). Examination of how social aspects moderate the relationship between task characteristics and usage of social communication technologies (SCTs) in organizations.
- Cody Morris Paris, Woojin Lee, Paul Seery (2010). The Role of Social Media in Promoting Special Events: Acceptance of Facebook 'Events'.
- Colin Drury (2009). "Management and cost accounting". Journal of Management.
- Daniel E. O'Leary (2011). The use of social media in the supply chain: survey and extensions.
- Dara Schniederjans, Edita S. Cao, Marc Schniederjans (2013). Enhancing financial performance with social media: An impression management perspective.
- Donna Witek, Teresa Grettano (2012). Information literacy on Facebook: an analysis.

- Essi Pöyry, Petri Parvinen, Tuuli Malmivaara (2013). Can we get from liking to buying? Behavioural differences in hedonic and utilitarian Facebook usage.
- George Pallis, Demetrios Zeinalipour-Yazti, Marios D. Dikaiakos (2011). Online Social Networks: Status and Trends.
- H. Kietzmann, Jan; Kristopher Hermkens (2011). Social media? Get serious! Understanding the functional building blocks of social media.
- Hema Yoganarasimhan (2012). Impact of social network structure on content propagation: A study using YouTube data.
- Hopkins, Jim (October 11, 2006). "Surprise! There's a third YouTube co-founder". USA Today. <http://www.pcmag.com/encyclopedia/term/57119/youtube> . Retrieved November 29, 2008.
- Jason J. Jung (2012). Online named entity recognition method for microtexts in social networking services: A case study of twitter.
- Kaplan Andreas M., Haenlein Michael (2010). Users of the world, unite! The challenges and opportunities of Social Media.
- Kaye D. Sweetser, Tom Kelleher (2011). A survey of social media use, motivation and leadership among public relations practitioners.
- Kim, K.-S., Yoo-Lee, E. and Joanna Sin, S.-C. (2011). Social media as information source: Undergraduates' use and evaluation behaviour.
- Kirk Plangger (2012). The power of popularity: how the size of a virtual community adds to firm value.
- Kotval, X. P. and Burns, M. J. (2013). Visualization of Entities Within Social Media: Toward Understanding Users' Needs.
- Laurel, Brenda (2003). Design research: methods and perspectives. MIT Press.
- Mark Boccia (2013). Social Business by Design: Transformative Social Media Strategies for the Connected Company.
- Michael A. Stelzner (2012). Social Media Marketing Industry Report.
- Mignon Reyneke, Leyland Pitt, Pierre R. Berthon (2011). Luxury wine brand visibility in social media: an exploratory study.
- Mike Thelwall, Kevan Buckley, Georgios Paltoglou (2011). Sentiment strength detection for the social web.
- Nuria Lloret Romero (2011). ROI. Measuring the social media return on investment in a library.
- Paul Greenberg (2010). The impact of CRM 2.0 on customer insight.

- Perrigot, R., Kacker, M., Basset, G. and Cliquet, G (2012). Antecedents of Early Adoption and Use of Social Media Networks for Stakeholder Communications: Evidence from Franchising.
- Peter Drucker (1974). Management: Tasks- Responsibilities- Practices.
- Ravenscroft, A., Schmidt, A., Cook, J. and Bradley, C (2012). Designing social media for informal learning and knowledge maturing in the digital workplace.
- Richard Hanna, Andrew Rohm, Victoria L. Crittenden (2011). We're all connected: The power of the social media ecosystem.
- Sangeeta Singh, Stephan Sonnenburg (2012). Brand Performances in Social Media.
- Scott, Orlikowski (2012). Reconfiguring relations of accountability: Materialization of social media in the travel sector.
- Squicciarini, A. C., Xu, H. and Zhang, X. (2011). CoPE: Enabling collaborative privacy management in online social networks.
- Social Media Marketing Industry Report (2012). Social Media Examiner. <http://www.socialmediaexaminer.com/report/>
- Stuart E. Jackson (2011). The value of weak connections.
- Sungwook Hwang (2012). The strategic use of Twitter to manage personal public relations.
- W. Glynn Mangold, David J. Faulds (2009). Social media: The new hybrid element of the promotion mix.
- Xia Hu, Huan Liu (2012). Text Analytics in Social Media.
- Xu Cheng, Cameron Dale, Jiangchuan Liu (2008). Characteristics and Potentials of YouTube: A Measurement Study.
- Yang Yu, Wenjing Duan, Qing Cao (2013). The impact of social and conventional media on firm equity value: A sentiment analysis approach.
- Yung-Ming Li, Ya-Lin Shiu (2012). A diffusion mechanism for social advertising over microblogs.



## 8. Appendix

### Appendix 1: Quantitative Results

Keyword 1	Connector	Keyword 2	Numbers of total results	Number of selected result	1st Filter	2nd Filter
<b>Science Direct</b>						
Social Media	and	Performance	19	11	Abstract, title, keyword	Deep reading of the article
		Indicators	6	3		
		Evaluation	13	3		
Facebook		Performance	4	2		
		Indicators	1	1		
		Evaluation	2	0		
Twitter		Performance	4	3		
		Indicators	3	3		
		Evaluation	4	1		
Youtube		Performance	1	1		
		Indicators	1	1		
		Evaluation	0	0		
LinkedIn		Performance	0	0		
		Indicators	0	0		
		Evaluation	0	0		
<b>Emerald</b>						
Social Media	and	Performance	6	2	Abstract	Deep reading of the article
		Indicators	2	2		
		Evaluation	6	0		
Facebook		Performance	6	1		
		Indicators	1	0		
		Evaluation	2	0		
Twitter		Performance	0	0		
		Indicators	0	0		
		Evaluation	1	0		
Youtube		Performance	0	0		
		Indicators	0	0		
		Evaluation	0	0		
LinkedIn		Performance	1	1		
		Indicators	5	2		
		Evaluation	0	0		
<b>Springer Link</b>						
Social Media	and	Performance	27	2	All of the words	Deep reading of the article
		Indicators	30	1		
		Evaluation	35	1		
Facebook		Performance	30	0	Title	
		Indicators	17	2		
		Evaluation	31	1		
Twitter		Performance	47	0		
		Indicators	33	0		
		Evaluation	54	2		
Youtube		Performance	20	2		
		Indicators	11	0		
		Evaluation	20	0		
LinkedIn		Performance	0	0		
		Indicators	0	0		
		Evaluation	0	0		
<b>Wiley</b>						
Social Media	and	Performance	80	3	Abstract	Deep reading of the article
		Indicators	40	0		
		Evaluation	101	3		
Facebook		Performance	4	0		
		Indicators	0	0		
		Evaluation	4	1		
Twitter		Performance	1	0		
		Indicators	2	1		
		Evaluation	3	0		
Youtube		Performance	7	0		
		Indicators	2	1		
		Evaluation	4	1		
LinkedIn		Performance	0	0		
		Indicators	0	0		
		Evaluation	0	0		

Appendix 2: Literature Review – Science Direct

Science Direct	Title	Journal	Author	Methodology	Sector	Objective	Main findings	Type of indicator
	Enhancing financial performance with social media: An impression management perspective	Decision Support Systems	Dara Schmiederjans, Edita S. Cao, Marc Schmiederjans (2013)	Theoretical	Pharmaceutical	This paper seeks to address social media usage in impression management (IM).	The results provide text mining validation that social media have a positive impact on IM.	EPS
	We're all connected: The power of the social media ecosystem	Business horizons	Richard Hanna, Andrew Rohm, Victoria L. Crittenden (2011)	Theoretical	Private	This article offers a systematic way of understanding and conceptualizing online social media, as an ecosystem of related elements involving both digital and traditional media.	It is no longer enough to merely incorporate social media as standalone elements of a marketing plan. Companies need to consider both social and traditional media as part of an ecosystem whereby all elements work together toward a common objective	---
	A diffusion mechanism for social advertising over microblogs	Decision Support Systems	Yung-Ming Li, Ya-Lin Shiu (2012)	Empirical	Microblog advertising	In this paper, considering the factors of user preference, network influence, and propagation capability, we propose a diffusion mechanism to deliver advertising information over microblogging media.	The proposed mechanism can widely extend the spreading coverage of advertisements and improve the resonance of advertisements.	user preference (fan page, brand, music they follow), Advertisment fitness, Influence analysis, Propagation strength analysis
	The impact of social and conventional media on firm equity value: A sentiment analysis approach	Decision Support Systems	Yang Yu, Wenjing Duan, Qing Cao (2013)	Empirical		This study aims to investigate the effect of social media and conventional media, their relative importance, and their interrelatedness on short term firm stock market performances.	The article show that overall social media sentiment has a stronger impact on firm stock performance than conventional media, while social and conventional media have a strong interaction effect on stock performance. These results highlight the importance of social media and conventional media (in a less degree) on firm stock performance and uncover the moderating relationship between these two types of media sources.	Sentiment polarity and Rate of return of common stock
	Using Blogs to Solicit Consumer Feedback: The Role of Directive Questioning Versus No Questioning	Journal of Interactive Marketing	Balagué, de Valck (2012)	Empirical	Private	With a field experiment, this article addresses the effect of participant interaction and the role of questioning on the performance of blog platforms that aim to solicit online consumer feedback.	The article show that, in blogs, directive questioning in both collective and individual protocols benefitted feedback quantity but hindered its quality. We find that the individual, no-questioning protocol is best for quality	Questioning: Feedback of quantity and quality
	Online named entity recognition method for microtexts in social networking services: A case study of twitter	Expert Systems with Applications	Jason J. Jung (2012)	Empirical		The aim of this work is to exploit the conventional NER methods for analysing a large set of microtexts of which lengths are short. Particularly, the microtexts are streaming on online social media, e.g., Twitter.	In this paper, we have shown a novel NER system based on microtext clustering method by considering various contextual associations.	---
	Reconfiguring relations of accountability: Materialization of social media in the travel sector	Accounting, Organizations and Society	Scott, Orlikowski (2012)	Theoretical		Using research on user-generated content, we examine online rating and ranking mechanisms and analyse how their performance reconfigures relations of accountability. Our specific interest is in the use of so-called "social media" such as TripAdvisor, where participant reviews are used to rank the popularity of services provided by the travel sector.	In this paper, we have only laid out possible contours and signposts for approaching such a question by highlight the sociomateriality of accountability and its performative consequences.	---
	The Role of Marketing in Social Media: How Online Consumer Reviews Evolve	Journal of Interactive Marketing	Chen, Fay, Wang (2011)	Empirical	Private automobile	This paper examines relationships between consumer posting behaviour and marketing variables such as product price and quality and explores how these relationships evolve as the Internet and consumer review websites attract more universal acceptance.	We find that instead of following a random selection process, firm marketing variables have a significant relationship with consumers' propensity to post.	Number of posting and overall rating

Social Media and KPIs: A Literature Review

Science Direct	Title	Journal	Author	Methodology	Sector	Objective	Main findings	Type of indicator
	The strategic use of Twitter to manage personal public relations	Public Relations Review	Sungwook Hwang (2012)	Empirical		This study examined the effect of personal public relations developed through Twitter on cognitive and attitudinal aspects, particularly focusing on the use of Twitter by CEOs.	The survey responses in this study indicated that most respondents positively evaluated the use of Twitter by CEOs.	
	Social media: The new hybrid element of the promotion mix	Business horizons	W. Glynn Mangold, David J. Faulds (2009)	Theoretical		This article argues that social media is a hybrid element of the promotion mix because in a traditional sense it enables companies to talk to their customers, while in a non-traditional sense it enables customers to talk directly to one another.	literature review about the use of social media as hybrid element of promotion mix. It explain how is possible to shape discussions in different social media platforms.	---
	Brand Performances in Social Media	Journal of Interactive Marketing	Sangeeta Singh, Stephan Sonnenburg (2012)	Theoretical		Our paper uses the metaphor of improvisation (improv) theatre to show that in social media brand owners do not tell brand stories alone but co-create brand performances in collaboration with the consumers	in the study they find three main point (1)the process of improvisation is more important than its output, (2) managing brand performances is about managing tension, and (3) understanding the audience and the roles it plays is crucial for meaningful brand performances.	---
	Examination of how social aspects moderate the relationship between task characteristics and usage of social communication technologies (SCTs) in organizations	International Journal of Information Management	Chulmo Koo, Yulia Wati, Yulia Wati (2011)	Empirical		By applying media richness theory and social theories, this study investigated how social communication technologies (SCTs) can be used by an employee to fit his/her task characteristics. Additionally, it also examined how the employee's social relationships moderated media usage in the current job environment and how this usage influenced the task performance	The results indicated that task characteristics were related to media usage, whereas social factors (social influence and social affinity) moderated some of the relationships.	---
	Can we get from liking to buying? Behavioural differences in hedonic and utilitarian Facebook usage	Electronic Commerce Research and Applications	Essi Pöyry, Petri Parvinen, Tuuli Malmivaara (2013)	Empirical	Travel	This study distinguishes between consumers' hedonic and utilitarian motivations for using company-hosted Facebook pages and relates them to two types of community usage behaviour: browsing and participation	Firstly, it shows the relevance of both hedonic and utilitarian motivations for using company-hosted Facebook pages. Secondly, it successfully examined the links between the behavioural patterns of browsing and participation, and users' loyalty intentions towards the host company.	Survey
	A survey of social media use, motivation and leadership among public relations practitioners	Public Relations Review	Kaye D. Sweetser, Tom Kelleher (2011)	Empirical	Public relations	This study investigates the relationship between motivation, leadership and social media use among a sample of public relations practitioners who recently had begun using Twitter to follow Universal Accreditation Board (UAB)-affiliated organizations.	Successful leadership within a profession or even within an organization may not require elite prominence in worlds of social media (e.g., population of all Twitter users), but those who are more influential relative to others in the same group (in this case, public relations tweeters following UAB-affiliated organizations) are more likely to see the value of social media for themselves personally.	Use of twitter ranking tools, Situational Motivation Scale(SIMS)

Appendix 3: Literature Review – Emerald

Emerald	Title	Journal	Author	Methodology	Sector	Objective	Main findings	Type of indicator
	Information literacy on Facebook: an analysis	Reference Services Review	Donna Witek, Teresa Grettano (2012)	Theoretical	Scholar	This analysis, being part one of a two-part study, aims to illustrate the attitudes and patterns users are being habituated to through the functionality of Facebook, relate them to information literate practices and behaviours, and speculate their application to information literacy instruction within an academic context. It also aims to lay the groundwork for part two, which is to be reported on in a later issue of this journal.	Three Facebook functions – Feeds, Share, and Comment – emerged as the primary means by which information literate practices and behaviours are developed and exhibited on Facebook. In addition, information literacy in the age of social media requires a “meta-literacy”: a critical awareness of why we do what we do with information.	---
	The impact of CRM 2.0 on customer insight	Journal of Business & Industrial Marketing	Paul Greenberg (2010)	Theoretical	CRM	This paper aims to look at what CRM 2.0 is and how it impacts customer insights. It will show how CRM 2.0's incorporation of social tools and strategies with traditional operational functions meets the demands of twenty-first century “social” customers.	The new breed of customer requires corporate transparency, authenticity and interaction. To affect this intelligent, aggressive social consumer, richer insight than that of the past is necessary. CRM and social tools use combined provides the capability for this insight.	Volume, Tone, Coverage, Authoritativeness
	ROI: Measuring the social media return on investment in a library	Bottom Line: Managing Library Finances, The	Nuria Lloret Romero (2011)	Theoretical		This paper aims to compare the parameters governing social media ROI at an enterprise level and at the level of non-profit institutions. Additionally, the use of social media tools in a strategic plan and to save costs in the institution is discussed.	Social media can be considered as an interesting information dissemination tool requiring only minimal effort that can be used by the library to promote reading and publicize its informational and cultural efforts. social media are particularly useful for small and medium-libraries as they provide the possibility of increasing the visibility of the institution and improving its service and its users' experience. Opening a new channel of communication with users on the internet is a challenge for libraries that can be optimized with the development of a strategy for the use of social media.	Compare marketing cost before Social media and after.
	Luxury wine brand visibility in social media: an exploratory study	International Journal of Wine Business Research	Mignon Reyneke, Leyland Pitt, Pierre R. Berthon (2011)	Theoretical		The purpose of this paper is to address the visibility of luxury wine brands, in particular the Bordeaux first growth brands in social media.	The findings of the paper show that some of the brands considered did not, at the time the data were gathered, have a clearly defined social media strategy.	Visibility score
	The value of weak connections	Journal of Business Strategy	Stuart E. Jackson (2011)	Theoretical		This article discusses the underlying human willingness to help others with whom we have relatively weak connections. Businesses that tap into this human trait can expect increased loyalty from customers and improved business performance. The author proposes four key strategies for companies wishing to address this opportunity.	They find 4 valuable point from the article (1)Offer a glorious product or service,(2)Think “customer to customer”, (3)Think non-customers, too, (4)Embrace weak connection technologies.	---

Appendix 4: Literature Review – Springer Link

Springer Link	Title	Journal	Author	Methodology	Sector	Objective	Main findings	Type of indicator
	Understanding social media effects across seller, retailer, and consumer interactions	Journal of the Academy of Marketing Science	Adam Rapp, Lauren Skinner Bettsbacher, Dhruv Grewal, Douglas E. Hughes (2013)	Theoretical	Business Media	The authors propose a contagion effect of social media use across business suppliers, retailers, and consumers. And their ultimate impact on multiple performance measures.	1)As consumer social media usage increases, consumer-retailer loyalty increases. 2)As retailer social media usage increases, supplier brand performance within the retailer increases. As retailer social media usage increases, retailer sales performance increases.	(*) Frequency of social contact (**) Brand reputation
	Online Social Networks: Status and Trends	New Directions in Web Data Management	George Pallis, Demetrios Zeinalipour-Vazti, Marios D. Dikaiakos (2011)	Theoretical		Present significant research challenges and discusses their societal and business impact.	Timeline of Online Social Network Sites	---
	Social Media Tools and Platforms in Learning Environments	Social Media Tools and Platforms in Learning Environments	Bebo White, Irwin King, Philip Tsang (2011)	Theoretical		The aim is to describe and present the social media as a phenomenon focused on connecting, sharing and collaborating.	Nothing escapes social networking. Everything is affected, from the way we do business (E-Commerce) to our involvement with the government (E-Government). Social tools such as Facebook and Twitter have become dominant drivers of future change in information and network technology along with the very functionality of modern society.	---
	Co-Creation of Value through Social Network Marketing: A Field Experiment Using a Facebook Campaign to Increase Conversion Rate	Human Interface and the Management of Information. Interacting with Information.	Asle Fagerstrøm, Gheorghita Ghinea (2011)	Empirical		Demonstrate that the conversion rate for applicants who apply for a Facebook group was 88.8 %, which is significant higher than for those who did not apply for a Facebook group (43.3 %). And also suggest that social network sites, such as Facebook, can be used as an arena for co-creation of value.	(*) The emergence of social media has given companies a powerful tool to create business value. (**) Social networks can be used as an arena for co-creation experience as a basis for value creation.	---
	The Role of Social Media in Promoting Special Events: Acceptance of Facebook 'Events'	Information and Communication Technologies in Tourism 2010	Cody Morris Paris, Wooljin Lee, Paul Seery (2010)	Empirical		This study examines Facebook 'events' as a medium for promoting special events to consumers.	Users' trust and expected relationship through Facebook had a significant effect on users' acceptance of Facebook and their intended offline behaviour to attend the event.	---
	Effects of Knowledge Sharing and Social Presence on the Intention to Continuously Use Social Networking Sites: The Case of Twitter in Korea	U- and E-Service, Science and Technology	Bong-Won Park, Kun Chang Lee (2010)	Empirical		Investigate why people holds continuous intention to use the Twitter from the perspective of knowledge-sharing and social presence	Among Social Networking Site, the number of Twitter users is quickly increasing. People's intention to use the Twitter continuously is influenced by social presence, perceived enjoyment, and perceived ease of use.	---
	Impact of social network structure on content propagation: A study using YouTube data	Quantitative Marketing and Economics	Hema Yoganarasimhan (2012)	Empirical		Aim to how the size and structure of the local network around a node affects the aggregate diffusion of products seeded by it. And also examine this in the context of YouTube, the popular video-sharing site.	The size and structure of an author's local network is a significant driver of the popularity of videos seeded, even after controlling for observed and unobserved video characteristics, unobserved author characteristics, and endogenous network formation.	---
	Characteristics and Potentials of YouTube: A Measurement Study	Peer-to-Peer Video	Xu Cheng, Cameron Dale, Jiangchuan Liu (2008)	Empirical	Business Media	Present an in-depth and systematic measurement study on the characteristics of YouTube videos.	YouTube videos have unique and interesting aspect, and have substantially contributed to the success of this new generation of services.	YouTube indicators: Number of Views Number of Rating Number of Comments
	Text Analytics in Social Media	Mining Text Data	Xia Hu, Huan Liu (2012)	Theoretical	Business Media	Provide an effective way to meet users' diverse information needs. Show how to improve existing approaches to text representation in social media, using real-world examples.	social media provides rich information of human interaction and collective behaviour, thus attracting much attention from disciplines including sociology, business, psychology, politics, computer science, economics, and other cultural aspects of societies	---

Appendix 5: Literature Review – Wiley

Wiley	Title	Journal	Author	Methodology	Sector	Objective	Main findings	Type of indicator
	Social Business by Design: Transformative Social Media Strategies for the Connected Company	Performance Improvement	Mark Boccia (2013)	Theoretical		This introductory book provides practitioners with the foundational knowledge of social business practices, terminology, and relevant examples across multiple industries and organizations.	Social business involves harnessing new sources of creative input from individuals united around a common purpose. A simple, natural, and open form of communication forms through these networks. While individuals on the network may never meet one another or receive compensation for their efforts they are contributing and creating value without being controlled by any one person or organization.	
	Tuning in and tuning out: media multitasking among young consumers	Journal of Consumer Behaviour	Bardhi, F., Rohm, A. J. and Sultan, F (2010)	Theoretical		This study examinee's media multitasking behaviours and experiences among young consumers. Media multitasking is the practice of participating in multiple exposures to two or more commercial media forms at a single point in time, including traditional, online, social, and entertainment media.	(*)Media multitasking can be described as the simultaneous consumption of various forms of media. Media multitasking can occur during interactions with multiple communication media, such as watching a program on TV, listening to one's iPod while chatting with friends on Facebook, and shopping online at Amazon. (*)Consumers are no longer passive media spectators, but interact with media in co-production settings.	
	Social media as information source: Undergraduates' use and evaluation behaviour	Proceedings of the American Society for Information Science and Technology	Kim, K.-S., Yoo-Lee, E. and Joanna Sin, S.-C. (2011)	Empirical		A survey study was conducted to investigate what kinds of social media are used as information sources and why. It also examined what kinds of actions users take in order to evaluate the trustworthiness of information provided by social media sources.	With the increasing popularity of social media, it might also be helpful that information professionals play a proactive role in improving the information quality of social media. 1)Social Media Used As Information Sources. 2)Contexts of Use. 3)Reasons for Using Social Media 4)Evaluation of Trustworthiness	
	Designing social media for informal learning and knowledge maturing in the digital workplace	Journal of Computer Assisted Learning	Ravenscroft, A., Schmidt, A., Cook, J. and Bradley, C (2012)	Theoretical		This paper presents an original approach to designing social media that support informal learning in the digital workplace. It adapts design-based research to take into account the embeddedness of interactions within digitally mediated work-based contexts.	Developing next generation social media, nuanced for more sophisticated purposes than (just) social networking G37and media sharing, is far more complex than our intuitions might suggest. Practices such as informal learning and knowledge maturing are embedded in longitudinal and evolving relationships among technologies, people, and communities, and influenced by practical, personal, and contextual constraints.	
	Visualization of Entities Within Social Media: Toward Understanding Users' Needs	Bell Labs Technical Journal	Kotval, X. P. and Burns, M. J. (2013)	Empirical		To understand user needs and preferences, we developed fourteen social media data visualization concepts and conducted a user evaluation of these concepts. Both the usefulness of the underlying data relationships and the usability of each data visualization concept were evaluated.	Social media platforms are taking a more central role in enterprises to enable employees to communicate, share knowledge, and self-organize outside the traditional organizational chart. As a result, new tools are needed to help users process, understand, and make decisions based on the complex relationships between the people, communities, and content in these new online social structures.	

Wiley	Title	Journal	Author	Methodology	Sector	Objective	Main findings	Type of indicator
	Antecedents of Early Adoption and Use of Social Media Networks for Stakeholder Communications: Evidence from Franchising	Journal of Small Business Management	Perrigot, R., Kacker, M., Basset, G. and Cliquet, G (2012)	Empirical		The motivation for this paper arises from the importance of stakeholder communications for firms and the rapid emergence of social media networks as a means of such communications. Our purpose is to understand the early adoption and use of social media networks for such communications by firms at a point in time when such networks were relatively new.	"Facebook, Twitter and LinkedIn are perfect platforms to promote upcoming franchise events and talk about company-related news." "Facebook page content—the higher the advertising royalty rates and the higher the percentage of company-owned outlets within the system, the richer the content of the Facebook page, because the franchisor is able to recapture the gains from the positive externalities created by its financial and managerial investments needed to enrich page content. Additionally, we found that franchisors in the service industry were likely to have higher levels of involvement on their Facebook pages than franchisors in the retail industry. Finally, purely domestic franchisors had higher levels of involvement on their Facebook pages than international franchisors.	---
	The power of popularity: how the size of a virtual community adds to firm value	Journal of Public Affairs	Kirk Plangger (2012)	Theoretical		This paper fills a gap in the marketing literature by examining the effect of online brand communities on firm value by using information from the 2010 and the 2006 editions of the Fortune 500 listing as well as key statistics from Facebook and Twitter.	1) Social media environments, such as Twitter and Facebook, increase consumer loyalty by increasing the popularity of the brand, allowing marketers another way of differentiating. 2) There is a positive relationship between social media investment and firm value, especially in mature, highly competitive industries, especially for business-to-consumer industries.	Facebook: Popularity
	CoPE: Enabling collaborative privacy management in online social networks	Journal of the American Society for Information Science and Technology	Squicciarini, A. C., Xu, H. and Zhang, X. (2011)	Empirical		This research extends the current access control mechanisms employed by OSNs to protect private information shared among users of OSNs. The proposed approach presents a system of collaborative content management that relies on an extended notion of a Content stakeholder A tool, Collaborative Privacy Management (CoPE), is implemented as an application within a popular social-networking site, facebook.com, to ensure the protection of shared images generated by users.	Collaborative Privacy Management (CoPE) system represents a first step toward a comprehensive solution for collaborative privacy management and offers a technical platform on which we can explore and test other advanced models and algorithms.	---
	The use of social media in the supply chain: survey and extensions	Intelligent Systems in Accounting, Finance and Management	Daniel E. O'leary (2011)	Theoretical		This paper examines the use of social media to capture the impact on supply-chain events and develop a context for those events. This paper also analyses the use of social media in the supply chain to build relationships among supply-chain participants.	Firms are beginning to employ social media in the supply chain; however, those applications are just beginning to emerge and are not fully developed or fleshed out. 1) Social media might be a strong tool to capture and respond to supply-chain events. 2) The integration of social media and traditional knowledge management as away of supporting supply-chain processes and operations.	---

Wiley	Title	Journal	Author	Methodology	Sector	Objective	Main findings	Type of indicator
	Sentiment strength detection for the social web	Journal of the American Society for Information Science and Technology	Mike Theilwall, Kevan Buckley, Georgios Paltoglou (2011)	Empirical		This article assesses an improved version of the algorithm SentiStrength for sentiment strength detection across the social web that primarily uses direct indications of sentiment.	SentiStrength seems to be suitable for sentiment strength detection in the social web even in its unsupervised version and is recommended for applications in which exploiting only direct affective terms is important.	---



Appendix 6: Literature Review – Others

Others	Title	Journal	Author	Methodology	Sector	Objective	Main findings	Type of indicator
	Social Media Marketing Industry Report	Social Media Examiner	Michael A. Stelzner (2012)	Empirical		This introductory book provides practitioners with the foundational knowledge of social business practices, terminology, and relevant examples across multiple industries and organizations.		---
	Social media? Get serious! Understanding the functional building blocks of social media	Business Horizons	H. Kietzmann, Jan; Kristopher Hermkens (2011)	Theoretical				---
	Users of the world, unite! The challenges and opportunities of Social Media	Business Horizons	Kaplan Andreas M., Haenlein Michael (2010)	Theoretical				---