THE IMPACT OF SOCIAL MEDIA CONVERSATIONS ON BRAND IMAGE OF CLOUD COMPUTING PROVIDERS

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Abstract: *The way that companies are doing marketing has changed dramatically over the years, vividly encouraged by the new channels of communications that have been developed, the social communities here included. This paper focuses on the IT industry and aims to analyse the impact of social media conversations on the brand image of cloud computing providers, with special focus on three social networks like Facebook, LinkedIn and Twitter. Through using netnography as main method of research, the paper aims to do a comparative analysis both from the point of view of different IT brands and from the point of view of different social communities, leveraging the use of specific hashtags. The research focuses on different aspects, such as number of conversations around a specific hashtag, type of topics, type of promoters, timeframe, geography, as well as the way these link and influence brand perception. The findings aim to help marketers better understand how and to what extent the conversations going on in social media can impact the perception and image of a brand and how they can leverage this to their advantage, with specific focus on the IT industry. As the below study shows, online marketing, especially through social media, can help shape the image of a brand in certain ways according to the different social network used. Due to the extensive reach that these online communities have, with the right tools, messages and influencers, marketers from the IT industry can benefit from a very useful and cost effective branding strategy which can help position their IT solutions in both a reliable and rapid way. On the other side, special care still needs to be taken regarding the messages that are being sent across these platforms, as once being launched it is very difficult to erase them and change the perception already in place. Also, overall, the brand perception of the companies analysed proved to be more or less consistent all over the different social networks, however this is again a very sensitive aspect to which marketers need to pay special consideration.*

Keywords: social media; brand image; netnography research; cloud computing; online marketing;

JEL classification: M310;

1. Generally Introduction

Online marketing has been continuously expanding its area of reach through more and more means of communications and throughout different industries as well. Leveraging their wide reach in terms of target audience and high speed of delivering the messages, social platforms have quickly transformed from being just a social networking environment to becoming a highly appreciated marketing channel. IT companies, even in the business to business area, have quickly acknowledged these benefits and started building

communities and leveraging influencers and hashtags with the purpose of increasing awareness and building a positive and strong brand image.

Each day, more conversations are bound to happen in social media than in any other channel of communication. The velocity at which these are being transmitted and also their high reach make them a big source of unstructured data that can be analysed in order to provide valuable information regarding brand positioning.

Given all the above, taking a deep dive in the social communities proves to be essential for accurately weighing the status of brand perception in the minds of followers and influencers. Due to the nature of the information and online channels, netnography proves in this case to be the best choice to investigate the impact of social conversations on a brand image.

By analysing the number of conversations surrounding a specific hashtag, their geography, topics, the type of accounts that have shared specific information, marketers can get a better understanding on how a brand image is perceived and also, focus on developing its key strengths in the customers/influencers minds and acting with more caution to diminish the less positive messages.

Another important aspect that marketers need to take into consideration while leveraging these online channels is to make sure that the marketing communications are being conducted in an integrated manner, so that the image of a brand will be perceived in a consistent way across different social platforms.

For the purpose of this research, we have chosen 4 specific hashtags from the IT industry surrounding the cloud solutions and providers and ran a comparative analysis in terms of brand perception throughout the 3 main social platforms: Facebook, LinkedIn and Twitter.

2. Literature Review

In the few past years the growth of digitalization in general have reached heights and the rapidity of its evolution offer the possibility of a new era of doing business in the online environment.

Big companies tries to develop tools and services that can help not only improving their customer relationship but also have greater results concerning the business.

First of all, cloud computing is a solution that it comes in hand for large companies and which enables fast processing, a large capacity of data-storage, and allowes to share resources. It can offer flexibility, easier way to work with data management, research repeatability, and not to mention collaboration while minimizing maintenance requirements. The advantages offered by the solution are more advantageous than the challenges introduced by using this technological solution/resource (James and Weber, 2016).

As was mentioned (Ratten, 2016), cloud computing is an important technological innovation in the area of information systems development that provides the benefits of resource pooling, broad network access and self-service applications.

However, Cloud computing being a relatively recent phenomenon, the research on issues concerning the adoption of cloud computing by both organizations and individuals is still in a nascent stage. Among the research studies on the adoption of CC technologies conducted so far, quite a few have approached the problem from the perspective of organizations and not from individual user's perspective (Sharma et al., 2016).

The end users – who might have in certain cases the role of the client – have at their disposal the social networks – where either being involved in one of the big company's digital campaign or just to be informed at all times regarding a certain subject they are more and more using these channels. To be proactive and to make all the difference to a company - an application should detect interesting situations a long time before they happen in order to be able to handle situations in a automatically way, without a human supervision (Albuquerque et al., 2016).

The use of social media (e.g., Facebook, LinkedIn, Youtube, Twitter) has grown exponentially among consumers. People are spending more of their time on social platforms than others sites (Guesalaga, 2016).

Security, trust, and privacy are key points for organizations that want to adopt cloud computing and big data in general. However there are request for companies to move their data to the cloud (to take advantages of the benefits that this solution offers) and to centralize management for data centers this is why services and applications are designed and build in order to reduce cost and increase operational efficiency (Chang et al., 2016).

Cloud computing has become the influencing IT landscape and gained amplified attention in recent years as benefits of reduced IT costs and is management (Ramachandran, 2016).

Facebook is a corporation and online social networking service, its website was launched on February 4, 2004, by Mark Zuckerberg. The network have over 1.59 billion monthly active users and became the fastest company in the Standard & Poor's 500 Index to reach a market cap of $250 billion, according to (Carlson, 2010).

Twitter is an online social networking service wich allowes users to send and read short messages called "tweets" the lenght of one message is 140 characters. As a user you can read and post tweets, however if you are not registered can only read them. The social media channel was created in March 2006 and launched four mounth later. As of May 2015, Twitter has more than 500 million users, out of which more than 332 million are active according to (Wang et. al, 2016).

LinkedIn is a business-oriented social networking service was founded in 2002 and launched one year later, it is mainly used for professional networking. As of 2015, most of the site's revenue came from selling access to information about its users to recruiters and sales professionals according (Lemann, 2015).

LinkedIn is a particularly interesting target, given the professional nature of its audience. By analyzing LinkedIn network information, we can learn a lot about individuals and the people that they know (Bradbury, 2011).

Using online communities via social media to accelerate innovation is not without its challenges, however. Most business executives remain skeptical about the power of social media, especially regarding whether investing in social media can increase sales or discover valuable customers (Wang et al., 2016).

Social media has been defined in several ways in the literature however the most emphasized is: "the production, consumption and exchange of information through online social interactions and platforms". In practice, social media refers to specific platforms through which people communicate, such as forums where topics can be discussed, blogs, wikis with more information on a certain subject, social networks, and multi-media sites. And the big companies are adoptiong this method in their daily work with the customers but also internally with their employees (Guesalaga, 2016).

There are a lot of studies over the issue of branding in social media. For example Facebook is a a hallmark of social media - with over 900 million users that log in at least once every 30 days. There were run several analysis and was descovered that on average, consumers spend almost one third of their time to consumption of online social media. Because of the universality and capability of online communities to connect different people and businesses some industry and researchers support businesses to be present in social media and to take advantage of it if they want to be up to date. On the other hand, there are others indicate that social media exists to interract with people not brands. (Laroche et al., 2013).

Netnography as a written account resulting from studying the cultures and communities that emerge from Internet-based communications, where both the fieldwork and the textual interpretation are methodologically informed by the traditions and techniques of cultural anthropology (Mkono and Markwell, 2014).

In an early treatment of netnography, was suggests that the researcher should do this by first identifying potential communities and then carefully selecting either one or several communities for data gathering based on predetermined criteria. The researcher then enters the community (with or without introducing his presence), gathers data by observing and participating in the community's interaction, and develops an insider's understanding of the community's culture.

However, due to some profound technological and (cyber) cultural changes, online communities have gone through a process of fragmentation, proliferation, and maturation into an age of interconnected on-line communities such as YouTube, Facebook, and blogs (Weijo et al., 2014).

3. Research Methodology

Currently, many people are using online communities such as blogs, forums, event groups, news groups, social networking sites, photosharing communities and virtual worlds, so the internet became an important virtual space for research. In the mean time, our paper tries to present the perspectives and the impact of cloud computing on the marketplace. Therefore, the perfect way to express and analyse them, the paper purpose as marketing research method conducted into this study, netnography. Netnography explores the cultures and communities over internet, a method specially designed to analyze contents from social network sites, blogging, micro blogging, video blogging, forums (Kosinets, 2010).

Netnography follows the next six steps: research planning, entrée, data collection, interpretation, ensuring ethical standards, and research representation.

*Research planning.*The main purpose of this netnography research is to realize a comparative analysis of brand image for cloud computing in terms of the three social networks.

*Entrée.*The main objectives of netnography research refer to:

- Identifying topics of conversations regarding #cloud on Facebook, LinkedIn and Twitter.
- Identification of promoters and #cloud areas they belong on Facebook, LinkedIn and Twitter.
- Establishing the country of origin of messages tagged #cloud.
- Describe the usefulness of the service by followers of opinions about the messages tagged with #cloud.
- Discover the brand preference on the service - cloud, identified on social networks.

*Research representation.*The participants of this study were users from Facebook, LinkedIn and Twitter who included in their text messages #cloud, #cloud computing, also followers of them who replied to this issue.

*Ensuring ethical standards.*The netnography study did not share the users' private information and the data collected has been used only for statistics and interpretation.

4. Results

According to the objectives proposed, the results of netnography study are compared between 3 social platforms: Facebook, LinkedIn and Twitter.

4.1 Facebook

As being one of the leading social networks currently, Facebook proves to be an important source of unstructured data that can offer valuable information in regards to the image of a brand.

The current research was conducted by analyzing around 40 of the top most recent social

posts surrounding the hashtags of #cloudcomputing, #IBMCloud, #Oraclecloud and #Microsoftcloud.

On Facebook, there are more than 95000 people and companies using the hashtag #cloudcomputing and around 90000 #IBMcloud, which seem to be the leaders out of the four in terms of number of interactions generate.
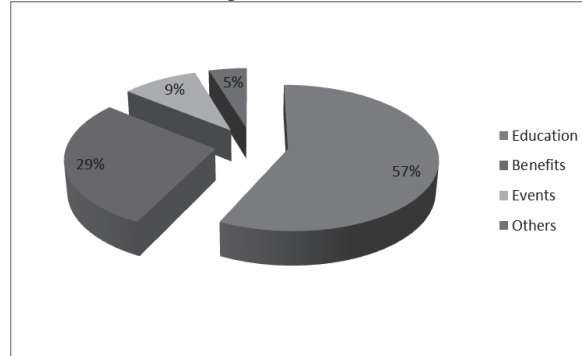

Figure 1. Distribution of topics surrounding #cloudcomputing
Source: Excel data analysis of netnography study

The top topics revolve around promoting education for working on cloud and also stating the benefits and events which surround cloud computing.

Although Facebook conversations are mainly known to be generated by individuals, given the fact that the analysis was made for the business to business IT industry, the findings proved that most of the entities sharing the posts were in fact coming from companies. From a branding perspective this also shows that IT companies have realized the importance of influencers on social networks and have also chosen to leverage their networks and credibility.

From a geographical perspective, top most recent conversations around the 4 hashtags are found to be generated in the USA.

Overall, the brand perspective is even a positive even a neutral one for each of the 3 companies analysed, with most of the conversations being led in a PR approach by other IT companies, associations or communities.

4.2 LinkedIn & Twitter

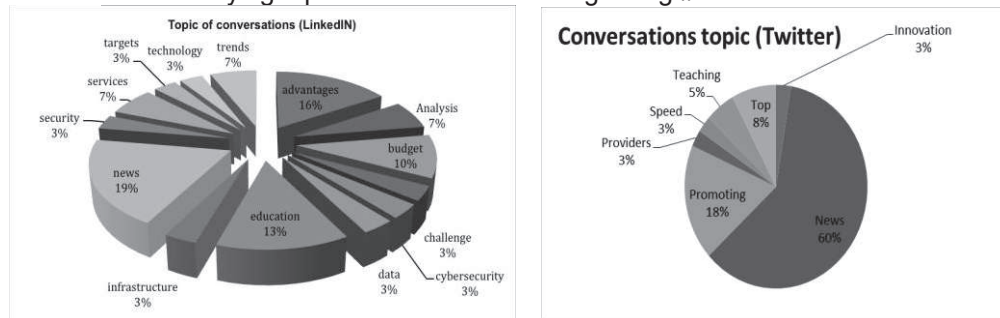- Identifying topics of conversations regarding #cloud on LinkedIn and Twitter.

Figure 2. The conversation topic of messages from LinkedIn.
Figure 3. The conversations topic of messages from Twitter
Source: Excel data analysis of netnography study

It can be observed from the Figure 1. that a big percentage of the discussions goes in area such as the news about cloud computing topic with a percentage of 19%, followed by the advantages that cloud computing bring in a company once is implemented – with a

16%. Education steps in with a percentage of 13%, the budget is the fourth with a total of 10%. Topic such as analysis, services and trends are mentioned in a percent of 7. Last but not least are topics such as targets, technology, data, security, challenges, infrastructure and cybersecurity in a percentage of only 3%.What can be concluded from the above results are the following aspects: the users engaged in the discussions are first interested regarding what is new about could computing then the advantages that the cloud is bringing to the company. When they are facing issues or questions they are interesting in extending their knowledge about the topic so they open topics regarding education. The budget remains a strong subject – being an important criteria in chose the best cloud solution for their personal or professional storage needs. What kind of analysis where conducted previous by similar user profile to see if their needs match other in the same situation are important – so discussion are always open on this topic. What services are available and what are the trends in cloud computing matter are areas that show interest to the participants. Although they don`t show an evident interest in topics like data, security, targets, challenge, infrastructure and cybersecurity – they are open once in a while.

In Figure 3. The conversations topic of messages from Twitter, it can be observed that 60% of topics are related to *News* about cloud. The 2nd place is reserved for *promoting* this service – cloud (18%). An 8% are allocated to realise *top* of something like top of cloud companies, cloud services, etc. At the last, 5% of conversations topic is regarding *teaching* about cloud, 3% about *cloud providers* and 3% for *cloud speed*.

- ▪ Identification of promoters and #cloud areas they belong on LinkedIn and Twitter.
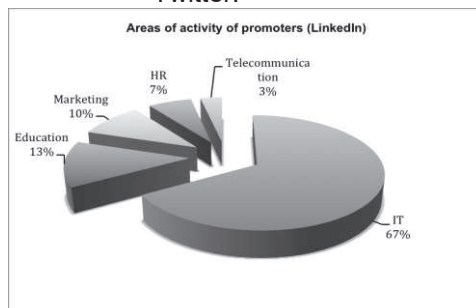

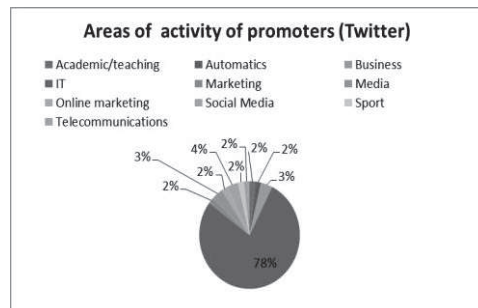**Figure 4.** The areas of activity of promoters' message (LinkedIn)
Figure 5. The areas of activity of promoters' message (Twitter)
Sources: Excel data analysis of netnography study

LinkedIn being a professional social media network the active participants of the discussions taking in consideration in this research are part of the IT environment – they are also called – the influencers; most of them are CEO, CIO, IT leaders – based on their profile. However there are also other active areas such as Education, Marketing and HR.
Figure 5. The areas of activity of promoter's message on Twitter, shows that mostly of them (promoters) are from *IT* field – 78% of total message analysed. 4% of messages come from *social media* specialists, 3% are occupied by *business* field as promoters of cloud messages, and the rest of them: *academic, telecommunications, media, sport, marketing* each of them represents 2%. As a conclusion, messages with #cloud, are related with IT field, without using this word as a metaphor in a totally different context.

- ▪ Establishing the country/regions of origin of messages tagged #cloud.
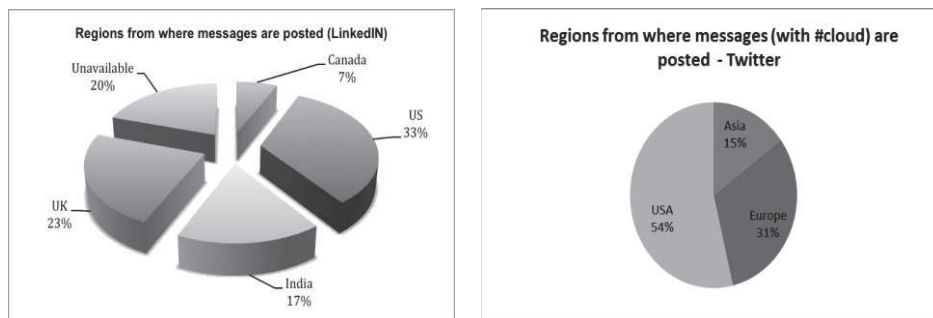
Figure 6. Regions from where messages are posted (LinkedIn)
Figure 7. The regions from where messages (with #cloud) are posted on Twitter
Source: Excel data analysis of netnography study

The majority of the users are cross US, few based in Europe and some from India – based on the availability of the information the their profile.
According to *Figure 7. The regions from where messages (with #cloud) are posted on Twitter, USA* (54%), is the region with the most posts regarding #Cloud, followed by *Europe* with 31% and *Asia* with 15%.

- Describe the usefulness of the service by followers of opinions about the messages tagged with #cloud.
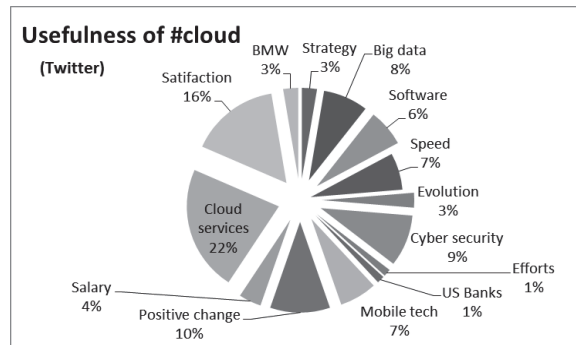

Figure 8. The usefulness of #Cloud through users posts (Twitter)
Source: Excel data analysis of netnography study

According to *Figure 8. The usefulness of #Cloud through users posts*, it can be observed that usefulness of cloud is defined by *services* that cloud offers (22%), *satisfaction* (16%), with *positive change* (10%), *cyber security* (9%), *Big data* (8%), *mobile tech&speed* (7%), *salary* (4%), *evolution* (3%), *strategy* (3%), *BMW* (3%), *US Banks* (1%), and *efforts* (1%). Generally, users associated usefulness of cloud with a large wide of attributes.

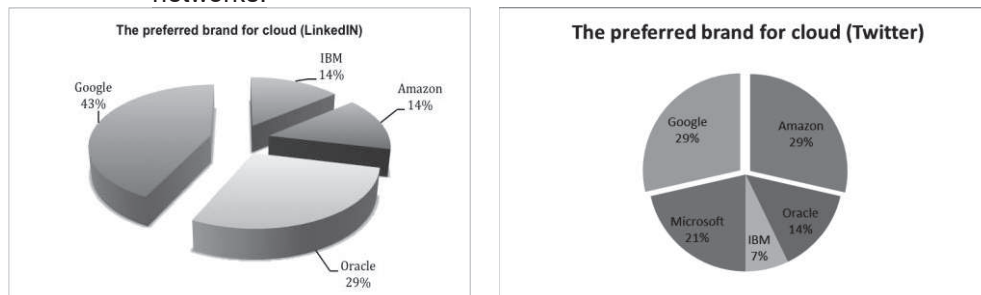- Discover the brand preference on the service - cloud, identified on social networks.

Figure 9. The prefered brand for cloud (LinkedIn)

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Figure 10. The preferred brand for using cloud (Twitter)
Source: Excel data analysis of netnography study

Some of the discussion might refereed to brands such as IBM, Oracle, Google – however the low amount of the reference to a brand in particular doesn`t allow us achieve the objective for LinkedIN social media platform.
In *Figure 10. The preferred brand for using cloud (Twitter),* it can be observed that *Google and Amazon* with 24% each, are the most preferred brands of using cloud. The 2nd brand preferred is *Microsoft* with 21%, *Oracle* is placed on 3rd place with 14% and *IBM* (7%)

5. Conclusions

This paper focused on the IT industry and analysed the impact of social media conversations on the brand image of cloud computing providers, with special focus on three social networks like Facebook, LinkedIn and Twitter. Through using netnography as main method of research, the paper did a comparative analysis both from the point of view of different IT brands and from the point of view of different social communities, leveraging the use of specific hashtags. The research focuses on different aspects, such as type of topics, type of promoters, timeframe, geography, as well as the way these link and influence brand perception.
The top topics revolve around promoting education for working on cloud and also stating the benefits and events which surround cloud computing. Although Facebook conversations are mainly known to be generated by individuals, given the fact that the analysis was made for the business to business IT industry, the findings proved that most of the entities sharing the posts were in fact coming from companies. From a branding perspective this also shows that IT companies have realized the importance of influencers on social networks and have also chosen to leverage their networks and credibility. Some of the discussion might refereed to brands such as IBM, Oracle, Google – however the low amount of the reference to a brand in particular doesn`t allow us achieve the objective for LinkedIN social media platform. Regarding Twitter it can be observed that *Google and Amazon* with 24% each, are the most preferred brands of using cloud. The 2nd brand preferred is *Microsoft* with 21%, *Oracle* is placed on 3rd place with 14% and *IBM* (7%). From a geographical perspective, top most recent conversations around the 4 hashtags are found to be generated in the USA.
Overall, the brand perspective is even a positive even a neutral one for each of the 3 companies analysed, with most of the conversations being led in a PR approach by other IT companies, associations or communities.

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