



EFFECTIVE LEAD MANAGEMENT IN CUSTOMER RELATIONSHIP MANAGEMENT WITH SENTIMENTAL ANALYSIS IN SOCIAL MEDIA

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ABSTRACT Customer relationship management (CRM) can help organizations manage customer interactions more effectively to maintain competitiveness in the present economy. As more and more organizations realize the significance of becoming customer-centric in today's competitive era, they adopted CRM as a core business strategy and invested heavily. CRM, an integration of information technology and relationship marketing, provides the infrastructure that facilitates long-term relationship building with customers at an enterprise-wide level. Successful CRM implementation is a complex, expensive and rarely technical projects. Since the global market is changing dramatically, the customer engagement plays a great role in business success. This paper defines a new prototype for framing a CRM model with the effect of Sentimental analysis from social media and the effective usage of existing data in the organization. The primary focus of this research is to enable the optimization of sales process by improving the lead qualifications.

KEYWORDS : Customer Relationship Management, Customer, CRM, Implementation, Sentimental analysis

1 Introduction

Companies that enter to compete in a new market weaken the existing and solid ones, due to new ways of doing and conceiving businesses. One of the factors that have driven all these changes is the constant change and evolution of technology. Because of this reality, the CRM concept has evolved in such a way that nowadays it must be viewed as a strategy to maintain a long-term relationship with the customers [1]. A good customer relationship is the key to business success. Relationship building and management, or what has been labelled as relationship marketing, is a leading approach to marketing [2]. The use of customer relationship management (CRM) systems is becoming increasingly important to improve customer life time value [3]. Understanding the needs of customers and offering value-added services are recognized as factors that determine the success or failure of companies [4]. So more and more businesses begin to attach great importance to electronic customer relationship management (e CRM), which focuses on customers instead of products or services, that is, considering customer's needs in all aspects of a business, ensuring customers' satisfaction. By providing information on customer data, profiles and history they support important areas of a company's core processes, especially in marketing, sales and service [5]. E CRM is all about optimizing profitability and enabled businesses to keep customers under control, as it makes the customer feel they are really a part of the business progress [6]. When managing the transition to a customer-centric organization, it is mandatory to develop the capabilities to acquire the necessary resources, knowledge and tools to meet customer's requirements with the appropriate products and services [1]. A knowledge based system is most effective in the managing of semi-structured problems. The abilities of such systems are usually applied on the managing level of strategic planning [7]. An effective CRM system should enable an organization to gain greater insight into customer behavior and preferences whereas ERP analytics are more likely to focus on supply and demand for key resources and materials [4]. It was found that just 22% of the companies surveyed possess a uniform customer view and only 37% know which customers are looked after by individual business units [10]. To eliminate weaknesses in customer contact, many companies are either planning or in the process of implementing CRM systems. According to Gartner survey [11], 65% of US companies intended to initiate CRM projects in 2002. In Europe, roughly 3% of companies had fully implemented a CRM project in 2001, 17% had initiated more than one local project and 35% were developing concepts for the introduction of CRM [12]. The software CRM market is expected to increase from \$7 billion in 2000 to 23 billion in 2005, even though conventional wisdom is that 30 to 50 percent of CRM initiatives fall short of meeting company objectives, while another 20 percent actually damage customer relationships [13]. Different organizations are approaching CRM in different ways. Some view CRM as a technology tool while others view it as an essential part of business. According to Verhoef et al. [14], the success rate of CRM implementation varies between 30% and 70%. According to industry analysts, almost two-thirds of CRM

system development projects fail [15]. According to IDC (International Data Corporation) and Gartner Group, the rate of successful CRM implementations is below 30% [16], hardly justifying the cost of implementation [17]. Another report estimates that between 60 and 90 percent of enterprise resource planning implementations do not achieve the goals set forth in the project approval phase [18] hence, key factors of success or failures during CRM implementation have been the subject of active research in recent years [19]. The study performed by Forsyth took a sample of 700 companies, with regards to the causes of failure to reach the CRM benefits [20]. The main causes of failure were:

- Organizational change (29%)
- Company policies/inertia (22%)
- Little understanding of CRM (20%)
- Poor CRM skills (6%)

The results implies every strategic changes for business planning in modern market wherein CRM skills for the employees have to upgrade regularly. Therefore the main objective of this paper is to upgrade the CRM sales process by data in collected beyond the customer interaction.

This research suggests a new framework for CRM in sales pipeline using sentimental analysis in social media. Sentiment analysis is the field of study that analyzes people's opinions, sentiments, evaluations, attitudes, and emotions from written language. It is one of the most active research areas in natural language processing and is also widely studied in data mining, Web mining, and text mining. In fact, this research has spread outside of computer science to the management sciences and social sciences due to its importance to business and society as a whole. The growing importance of sentiment analysis coincides with the growth of social media such as reviews, forum discussions, blogs, micro-blogs, Twitter, and social networks.

2. Methodology of research:

The research is done in a MNC (for data privacy in NDA the name of the organization is not mentioned here) to optimize the lead conversion rate and a new proposal is given to change the traditional CRM sales process. The company established CRM process in the geographical zones US, India and China. The research is done with the key users geographical wise.

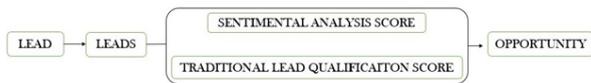
2.1. Traditional CRM Sales process:



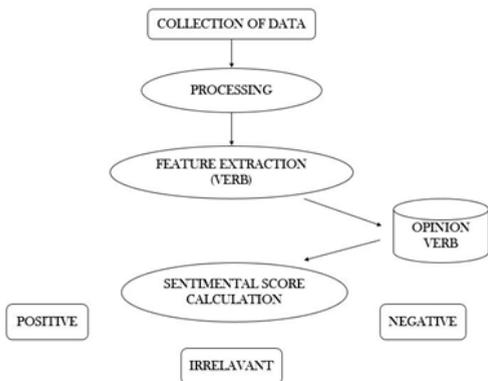
The Company uses the traditional CRM process to converts lead into opportunity. Here the interaction center is established in each

geographical level. Questionnaires are created by the key users as per their business required and get uploaded in SAP CRM. Based on the Questionnaires listed by key users, the interaction center employees will get series of data from the leads. Based on their response lead qualification score will be given to the lead and decide whether the lead has to be qualified for opportunity or not. In the project implementation SAP BI (business intelligence) is integrated with SAP CRM. And based on the data available in SAP BI, it is found that only 27% of leads are converted into opportunities.

2.2. Suggested Framework of CRM



The suggested framework involves the social media usage in real time business. The global market is hugely driven by social media. From the basic data listed in customer master data, the social profiles are linked in real-time business. In social media lead can generate a new lead in business with free of cost. Every tweets / comments by your existing customer will promote business at free of cost. The technology sentimental analysis is used along with traditional lead qualification score. The tools to predict the sentimental analysis score in market are Meltwater, Google Alerts, People Browser, Google Analytics, Hootsuite, Tweetstats, Facebook Insights, Page lever. The strategic plan to predict sentiment analysis score differs as per business. The proposal to determine sentimental score is given as follows,

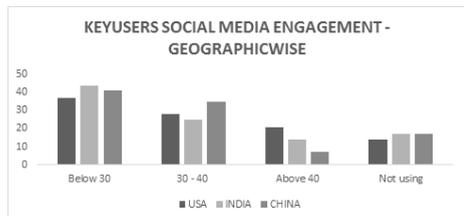


1. Collection of data - In this step the data is being collected from the social media from the Id linked with Leads. Typically it's an unstructured data. Example: Comments, Tweets, Likes, Referral URL, Query terms.
2. Processing of Data into Information - This step enables the data in terms of metrics and the extraction of verbs from the data being collected in social media.
3. Sentimental Score Calculation – based on the comparison of featured extracted verb and opinion verb the sentimental score for the opinion of the lead can be identified in the web.

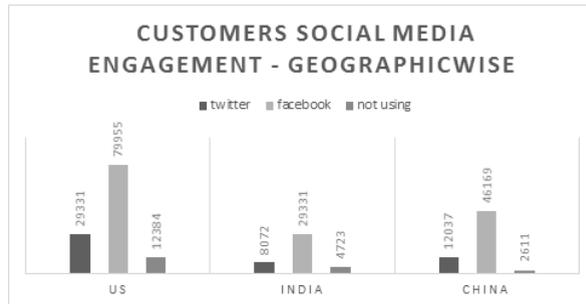
The score can be presented in three options,

- a) Positive - A positive sentiment means the Lead have positive views about the product.
- b) Negative - A negative sentiment means the Lead have negative views about the product.
- c) Irrelevant – No clear statement can be detected

In M20 scenarios most of the business decisions are taken by Key users. It is essential for the organization to provide knowledge to key users in predicting the sentimental analysis score. The series of investigation is carried out among Key users in geographic wise using questionnaires and the results are tabulated as follows.



For predicting sentimental scores, the social media platforms twitter and Facebook are taken in consideration. Using customer master data maintained in SAP Hybris marketing the customer social media profiles are collected from Jan 2010 to April 2016.



4. Discussion

The above studies indicates the organizations have to provide proper training to learn sentiment analysis tools for Employees (key users).

Besides implementation costs and technical efforts, the success of the change in IT system depend upon the attitude of the Employees in the organization towards the change.

The investment rate in establishing sentimental analysis score tool and the adaptation of IT change varies geographic wise.

As a future plan we would like to add more attributes in sentimental analysis calculation and try to improve sales process for business success and other benchmarks.

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