Master's thesis

Knowledge Management and its Role in Customer Relationship Marketing Campaigns Empirical study of online CRM tools

Promotor :
Prof. dr. Koenraad VANHOOF

Ali Al-Hayaly
Thesis presented in fulfillment of the requirements for the degree of Master of Management

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Abstract

This empirical study aimed at conducting a cross case analysis of a four targeted Web-based CRM companies (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), in which this research will recognize the extent of knowledge management implantations used in these selected systems. Then highlighting the enhancement role of knowledge management implantations on these web-based CRM selected systems. Besides conducting the cross mapping the marketing campaigns of these selected systems, then comparing the progresses upon the time line of each system development, in order to segregate similarities, differences and uniqueness between these selected systems. And identifying to what extent knowledge management is used in the marketing campaigns of these selected systems.

The study also aimed at identifying technologies and how these technologies will affect practices of the web-based CRM organizations upon a cross case analysis of the four companies (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*) investigated in this research, is forming the core statement of the implementation of knowledge management and its role in the customer relationship management with the integration concept of marketing campaigns upon the customer relationship marketing using online CRM tools.

This empirical study with its cross case methodology over the four selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), had concluded the significant role of knowledge management in the marketing campaigns in these web-based CRM companies by verifying the extent of knowledge management implantations used in these selected systems. And had showed the capacity of the four selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*) in highlighting the enhancement role of knowledge management implantations in regarding the role of knowledge management in the CRM advertising campaigns upon similarities and differences upon the cross mapping the marketing campaigns of these selected systems, then comparing the progresses upon the time line of each system development, in order to segregate similarities, differences and uniqueness between these selected systems.

AKNOWLEDGEMENTS

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- Background
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1.1 Background

The importance of relationships have increased in business and marketing, as the shifting nature of the technological developments and competition are highlighting this importance. And inward the same context, customer relationship management (CRM) has been played along with technological developments that have been used in the executions of its schemes. Hence, it's not a technological aspect only, or just a customer-facing system; simply it is the methodology that forms these strategies, and/or it is a solidification of many integrated business processes (Greenberg, 2001).

Industries are experiencing globalization, liberalization, increasing competitiveness, increasing customer switching rate and acquisition costs, less brand loyalty besides the more price sensitivity, so organizations must focus on the implementations of CRM to increase the customer loyalty, satisfaction and the customer retention; in society to increase profitability as a challenging job that takes commitment at each point of the management chain (Yadav, 2013).

Forrester defines customer relationship management (CRM) as a business processes and sustaining applied sciences that support the central natural processes of acquiring, retaining, targeting, collaborating and understanding customers (Band, 2012).

Therefore, CRM can be reported as the organizational approach of understanding the processes of the customer behaviour influence through the meaningful communications in order to improve customer loyalty, acquisition, profitability and retention (Swift in Ngai, 2005).

It is possible with the free translation to conceptualize customer relationship management CRM as the "Management of the Relationships with customers"; thereby CRM can be tied back to the concept of relationship marketing RM (Levitt, 1983), which is an integrated system build up to maintain a network with individual or group customers nationally and internationally (Shani, D. and Chalasani, S., 1992), as a strategic philosophy aiming at producing an integrated perspective of the client across the enterprise, and forming the building blocks of the integrated CRM systems due to the increasing needs of customers concerning the quality of services and products, putting companies under an outstanding pressure of putting through the effective, collaborated and dynamic networks based on innovative information technologies.

The empirical origins to knowledge management argue that the growth of knowledge management (KM) has emerged from the technological development that has highlighted the interest in it through two main sources: the enormous growth of information resources and the rapid pace of technological change (Hibbard, 1997; Mayo, 1998), therefore recent IT developments have affected the organizations in a way that emphasizing knowledge management as an attempt to cope with the huge explosion of

information systems within the emerging technological development which can enable global sharing of information across platforms and continents, and even to serve as a tool within organizations in order to use knowledge more effectively (DiMattia and Oder, 1997), therefore the KM oriented processes focus on the characteristics of knowledge during the integrated systems lifecycle, as they analyse the environmental variables that influence these processes of knowledge development, knowledge dissemination, knowledge modification and knowledge use.

Recently, customer relationship management (CRM) solutions market has experienced a rapid rise in the popularity of cloud solutions, focusing on web-based implementations (Band et al, 2010), and finding that CRM technology buyers now consider web-based solutions as the main strategy within business, aiming at creating and maintaining a lasting relationships with customers (Ling and Yen, 2001), and recently too, companies have integrated their customer relationship management (CRM) and knowledge management (KM) implementations as they realize that KM plays a key role in CRM success.

1.1.1 Knowledge Management and Customer Relationship Management integration

For attaining the principal goal of providing an integrated solution for the interacted processes between customers and governing bodies, organizations should focus on three sorts of knowledge in CRM processes:

Understanding the customer's requirements; "*knowledge about customers*".

Recognizing the needed information of the customer's interaction process with the organization requires "*knowledge for customers*".

Possessing knowledge about the products and services that the customer use, as well as about how they perceive the offerings they purchased, "*knowledge from customers*".

Thus introducing the content, competence, collaboration and writing as the main KM aspects will consider Customer Knowledge Management (CKM) a termination of the collaborative processes that illustrate which KM tools can be utilized to the CRM processes and sub-processes to achieve effective CKM (Gebert, H., Geib, M., Kolbe, L. M. and Riempp, G., 2002).

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1.1.2 Customer Relationship Management and Marketing Relationship integration

Relationship marketing is formed-up of the philosophical, strategic and functional dimensions of the main focus towards establishing closer relationships with customers to overcome the global competitive advantage and managing with the rapidly changing technologies (Mustafa, 2012).

By switching to a marketplace-oriented business climate, marketing relationships focus internally on employees and externally on customers, suppliers, and other important influence markets, thus making such relationships, companies as a resolution, will achieve a deeper understanding so that they can service markets better upon their demands and desires. In this perspective, marketing is no longer simply about products or services development, selling, and giving up, but it is the exclusive bonds between the parties involved in the marketing relationships which will provide unique advantages and experience the potential of contributing to a sustained competitive advantage for organizations.

Therefore, acting upon the CRM concepts and putting customers and their needs at the centre of the business processes and actions upon the marketing relationships perspectives are the fundamental aspects of the marketing philosophy (Deshpande & Webster, 1989).

1.1.3 Customer Relationship Marketing in the Internet Age

Technological choices and the analytical scheme of how to influence these technologies and how these technologies shape practice, society, and civilization will help organizations fulfilling certain objectives like getting a more complete view of their customers and a fuller understanding of their needs and desires, which in turn contributes to better targeted marketing and relationship selling.

Customer relationship management CRM as a marketing strategy evolving the role of knowledge management, and with the growing global penetration of the Internet; electronic customer relationship management (e-CRM) has become increasingly popular as a communication tool and relationship-building platform. Organizations are keen to deploy different types of e-CRM tactics to attract, maintain, and enhance customer relationships, as they believe good customer relationships are beneficial to loyalty and profitability of the organization (Reichheld, 1996; Winer, 2001).

1.1.4 Marketing campaigns

Marketing theories have offered direction on how organizations should react to opportunities, but marketing actions are likewise capable to alter the environment and create opportunities (Zeithaml and Zeithaml, 1984), according to these general management duties:

- Navigating through effective market sensing,
- Articulating the value proposition,
- Providing essential glue that guarantees a consistent whole" (Hunt, 2004).

CRM enhances marketing campaigns capabilities because it is "the result of the continuing development and integration of marketing ideas within the knowledge management KM implementations and roll, and the newly available data, engineering sciences and organizational forms" (Boulding, 2005).

1.1.5 Online CRM tools

Business development has phased the using of a web based CRM or customer relationship management systems that allow sales people to apply the power and convenience of the Internet, with some programs require downloading software to employ the web based CRM, or others just play off a web based CRM program.

Web based CRM programs help manage contacts, leads, and existing accounts online. These touches can be managed but using email, calendars, and sorting functions that are usable with most web based CRM systems.

1.2 Research Problem

Strategies of how to shape technologies and how these technologies will affect practices of the web-based CRM organizations upon a cross case analysis of the four companies (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*) investigated in this research, is forming the core statement of the implementation of knowledge management and its role in the customer relationship management with the integration concept of marketing campaigns upon the customer relationship marketing using online CRM tools; by trying to understand how can/will these systems deal with the

data in term of knowledge management role in the marketing campaigns? And do these web-based CRM systems offer the ability of learning from the past campaigns' gathered data?

1.3   Research objectives

The main objectives of this research emerge from conducting a cross case analysis of the four targeted companies (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), in which this research will recognize these goals:

1. Verifying the extent of knowledge management implantations used in these selected systems.
2. Highlighting the enhancement role of knowledge management implantations on these web-based CRM selected systems.
3. Cross mapping the marketing campaigns of these selected systems, then comparing the progresses upon the time line of each system development, in order to segregate similarities, differences and uniqueness between these selected systems.
4. Identifying to what extent knowledge management is used in the marketing campaigns of these selected systems.

1.4   Research Structure

This research is divided into five sections (chapters), where each chapter represents a scientific timed line sequence of the knowledge management role in the customer relationship marketing campaigns as an empirical study of the online CRM tools used by the four selected companies *(Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand),* and figure (1) shows the research structure.

Chapter one: Introduction	- Background - Research Problem - Research Objective - Research Structure
Chapter two: Research Methodology	- Introduction - Research methodology - Survey tools - Cross case analysis

Chapter three: Literature Review	- Introduction - Knowledge management - CRM - CRM and KM - Marketing theories - Marketing campaigns - Online Marketing tools

Chapter four: Overview of the selected systems	- Introduction
	- Research selected systems
	  - *Microsoft dynamics*
	  - *Salesforce.com*
	  - *Sugarcrm*
	  - *Oracle on demand*
	- Cross case mapping
	- Cross case analysis
	- Marketing campaigns survey

Chapter five: Discussions and Recommendations	- Introduction - Role of knowledge management in CRM systems - Role of knowledge management in CRM web-based marketing campaigns - Knowledge management influence on web- based marketing campaigns - Recommendations

Figure (1.1): The research structure

After reviewing the research background and its problem, questions and objectives, besides illustrating the structure of the study, the next chapter (chapter two: research methodology) will identify the research methodology upon the survey tool of the cross case analysis of the four selected systems (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand).

2 CHAPTER TWO: RESEARCH METHODOLOGY

- Introduction
- Research methodology
- Survey tools
- Cross case analysis

2.1 Introduction

Taking the full advantage of the intellectual perspective for understanding the effects of the web-based customer relationship management (e-CRM) tools on the overall organizational behaviour, and to understand the necessary processes is this understanding, all effects of the organizational transformation operations through content analysis will develop a unique approach for understanding these effects on the organizational marketing behaviours, and the value progress within its marketing campaigns, considering this study as an applied in-depth cross case study on four web-based companies, to test their propositions about the effect of e-CRM tools overlapping with the implementations of knowledge management on their marketing processes within their marketing campaigns.

Dissimilar types of used e-CRM tools will have a completely different impact on the structure, culture and processes, thereby the foremost crucial challenge of the e-CRM tools to be used is to know the doable effects of those instruments on each structure, behavior and processes, and therefore the acceptable management initiatives for best utilization of those tools at intervals the suitable marketing implementations on the cognitive operations of marketing efforts.

The World Wide Web trend is really near the people, client and the essential move of market power from supplier to client. The apprehension that the clients are the key to productivity to business success has prompted the need to create a client centred company to work with a single smooth view of the client to consistently durability and build up a long lasting connection on the net the competitors is in truth merely a mere mouse click away. The companies need a new strategy e-CRM to make usage of the online exclusive durability for catching client. CRM execution is charging and time intensive on the other hand e-CRM is very tight with less operational cost.

2.1.1 CRM and e-CRM

E-CRM is basically the variation of CRM in e-commerce atmosphere and helps build and maintain client connection using the network. It is a net based business technique that calls for growth of a set of incorporated software program to deal with all elements of client connections like sales, marketing area support and guest documentation. E-CRM exercise would email concentrate upon getting new client improving productivity of the current client section high value customer and increase life true value of successful client.

CRM is a company way of acquiring and holding the right client over the long run, within this framework a number of channels exist for interacting with the client one of this route is digital and has been branded e-commerce or e-business. This digital route does not replace the sales team, call centers; it is only another extension (Greenberg, 2001).

The 1990 was a period of remarkable growth of a class of software known as ERP (Enterprise Resource Planning). ERP program tie in numerous legacy program used for the after sales operate so that program across a company are joined to thereby create detailed across the company available more rapidly until the company went through a form of specialized program web servers throughout the company each dedicated to perform a specific function.

With ERP program a company is able to catch details are one position and combines it easily throughout various departments and operations. Although the ERP program is helpful in managing returning end functions they are not projected to catch details assistance the complexities of packaging (e.g. Ad campaign, consumer changing efficiency etc.) however the CRM program was specifically produced for the top side end program and were promptly embraced.

Ideal CRM allows a company to tailor its items and answers to each client efficiency. CRM may be utilized to produce a personalized one to one encounter that will offer the person client a sense of being taken care of thus opening up new promotional opportunity in accordance with the efficiency and record of the client (Peppers, D., Rogers, M., & Dorf, B., 1994).

Croteau and Li point out CRM is a customer focus company technique that is contrived to increase client care and guest loyalty by providing aid to each client (Croteau, Ann-Marie, & Li, P, 2003).

With the drive of a company program to the World Wide Web CRM has enhanced companies' abilities by providing accessibility its clients and supplier via the WWW. This web encounter and communication through the network is known as e-CRM.

The online is promoting e-CRM. It offers features that are attractive to client and company. The distinction between CRM and e-CRM are very fragile but important. They fear the underlying engineering and its links with customers and other proficiencies. For example, many e-CRM techniques offer the client with a self-assistance browser centred window to position purchase, check purchase status review purchase record demand more details about items sends e-mail and engage in a mixture of other actions. These abilities offer clients' freedom in terms of place and the fourth dimension. The client no longer restricted to contacting a company during regular company hours and the company does not have to propose a live contact on the other end for customer inquiries and demand.

Technological innovation of the traditional CRM program customer, client solutions was entirely trained and programmed with a way that run on single or more central web server. The program does not use details factory or details marts. The ERP program acts as details databases and get details from both the

top side and after sales functions. The usual client contact factors are retail shop outlet and the companies' client solutions and assistance centre e.g., personal contacts through retail shop outlet phone and facsimile.

With e-CRM the interface between the top side end and returning and operate is not only through ERP but it also utilizes details factory and details marts. Data factory is the consistent collection of details collected from several operational data sources.

A details mart is a constituent of a details factory in which only a concentrated part of the details factory details is kept (Haag, S., Cummings, M., & McCubbrey, D.j., 2004).

Customer contact factors in e-CRM are expanded to include the world wide web and Wi-Fi devices supporting mobile and PDA technological innovation. The customers in CRM are the proletarian of the troupe or the retail shop outlet personnel. The program provides accessibility via a set of predetermined choices and alternative which cannot be customized by the client. Any personalization requires creating significant changes at the program level in e-CRM however a personal can quickly customize these plans and alternatives through their web cantered user's connections.

CRM programs are developed around items and business functions. The programs are built up for the corporate division or the person worker to accessibility his client related intelligence and to provide client care more effectively.

In e-CRM the programs are built up with the customer in mind and offer the client the total encounter on the web. Each different customer has a different view of the array of detail items or solutions available to him. Web enable CRM usually is produced about one section or company unit and not the whole line. In an e-CRM however all programs are developed for the whole job including all clients, providers and partners.

According to Chaffey (2007) e-CRM refers to digital CRM or simpler CRM that is more web-based. The actual distinction between CRM and e-CRM are that at CRM client contact is started through conventional mean of phone, retail shop outlet or fax where e-CRM in addition to phone client contact can started through online, email, Wi-Fi and latest technological innovation.

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┌─────────────────────────────┐        ┌─────────────────────────────┐
│   Technology Map of CRM     │        │   Technology Map of e-CRM    │
└─────────────────────────────┘        └─────────────────────────────┘


      ┌──────────────────┐                  ┌──────────────────┐
      │ Backend Operation │                  │ Backend Operation │
      └──────────────────┘                  └──────────────────┘
              ↕                                      ↕
      ┌──────────────────┐                  ┌──────────────────┐
      │   ERP System     │                  │   ERP System     │
      └──────────────────┘                  └──────────────────┘
              ↕                                      ↕
    ╭──────────────────────╮              ╭──────────────────────╮
    │   Front end operation │              │   Front end operation │
    │  Supported Through    │              │  Supported Through    │
    │  retail Store and     │              │  retail Store &       │
    │  through In house     │              │  customer call centre │
    │  Customer services    │              │  voice response       │
    │                       │              │  system Kiosk         │
    │                       │              │  & through in house   │
    │                       │              │  customer Services    │
    ╰──────────────────────╯              ╰──────────────────────╯
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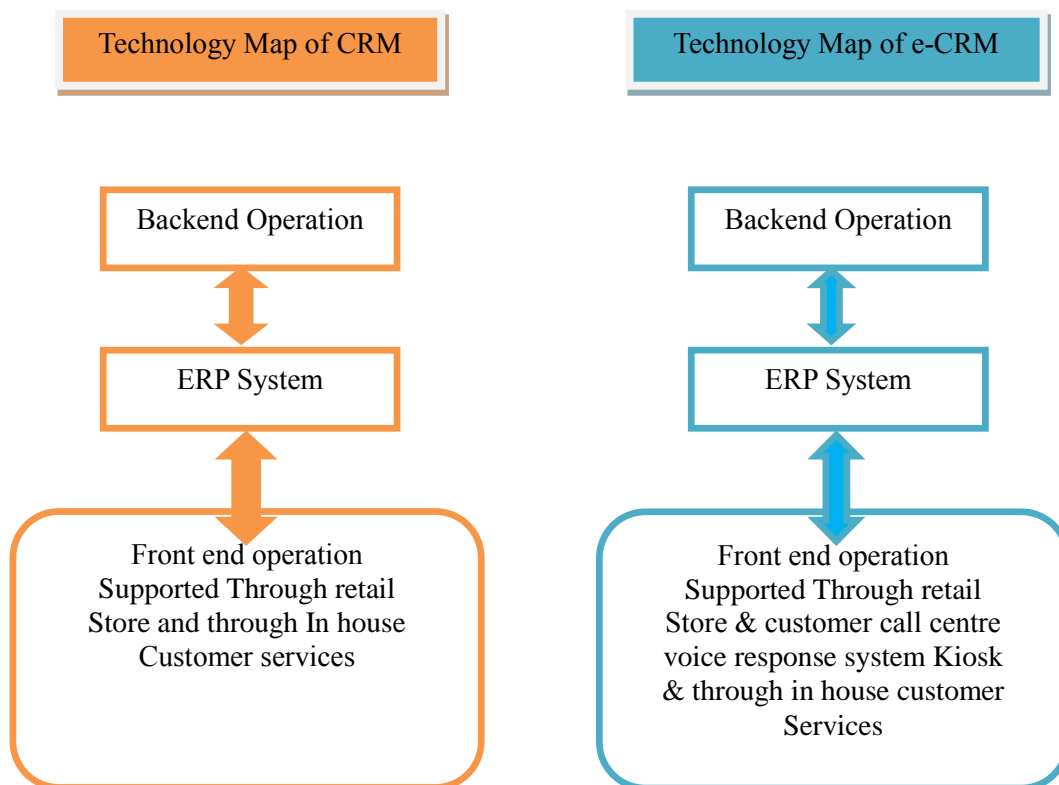
Figure (2.1): High level technology map of traditional CRM & E-CRM system respectively

Web enabled CRM usually is produced about one section or one business device & not the whole businesses. In E-CRM however all programs are built up for the whole businesses such as all customers' provider and parterres. The conventional CRM program does not allow the company to dynamically alter its marketing strategies in house E-CRM program provides this ability.

2.1.2 Technological difference between CRM and e CRM

CRM & e-CRM technology differences have been distinguished with the emergence of web based applications. So that using the internet of CRM is now a necessary strategy; these conflicts are illustrated in table (2.1).

Table (2.1): Differences in the technology of CRM & e-CRM

Standards	CRM	e-CRM
System interface	Work with back end application through ERP system	Outline for front end applications which thus interface with back end application through ERP framework information product house and information.
Client contact	Customer contact initiated through traditional means of retail store telephone and facsimile.	Notwithstanding phone contact additionally started with web email remote portable & PDA technology.
System overhead (client information processing systems)	Web enabled applications required a PC client to download several applications.	No such requirements the browser is the client Portal for E-CRM
Customization & personalization of Info	Customized perspective for a contrast gathering of people is impractical. Singular customization obliged customized of progressions	Very individualized element & customized perspective focused around buys & inclination are conceivable. Every group of onlookers separately alters the perspectives
System focus	The organization is designed around products and job role	The organization is designed around customer needs
System modification and maintenance	Implementation is longer and management is costly because the system is situated at various placements and on several servers	Reduced time and cost. System implementation & expansion can be wielded in one location on single host

Source: RASHID FAROOQI and DEVENDRA KUMAR DHUSIA, Indian Journal of Computer Science and Engineering (IJCSE), 2011.

2.2 Research methodology

Cross-case analysis, also called relative situation method or relative analysis, and is an analysis strategy that can consist of the evaluation of one situation or a selection of cases in order to learn something about ideas, concepts and procedures.

Cross-case or relative techniques consist of efficient analysis as first developed by Durkheim (1858–1917), is a qualitative strategy to make an analysis strategy for informative analysis. A cross-case analysis of four web-based companies (Microsoft characteristics, Sales force.com, Sugarcrm and Oracle on demand) to be performed in this work to examine antecedent factors associated with these firms' adopting of the online CRM resources depending on knowledge management in their merchandising scheme.

2.3   Survey Tools

Data were structured around a typical method and a distinctive set of businesses, through using the on the internet CRM resources in the four web-based companies (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand), and by building up a cross case map showing:

-Login (Sign in) methods in each instance;

-Data catch methods in each instance;

-Privacy/security methods in each instance;

-Visual effect methods in each instance;

-Special functions, methods in each instance;

-Pricing methods in each instance;

-Marketing functions, methods in each instance;

-Marketing strategies, methods in each place.

Then playing a corresponding map in relation to patterns of similarities and conflicts

2.4   Cross-case analysis

Cross-case researches encourage the new relationships made across situations generating new data and enhance current experience and information will form intellectual components and processes that can draw the cross-case research within the following commonalities:

1.   Cases signify rich natural illustrations of experiences;
2.   Cases are similar in regards to styles of resemblances and differences;
3.   Comparisons among situations can build and generate significant linkages, and
4.   Cognitive cross-case studies are a useful means to make analogies, draw implications, and develop depending overview of the survey results.

Similarly, for researchers who develop expertise through cross-case analysis:

1.   The cases represent rich situations of circumstances they have found or know approximately;
2.   The conditions are regarded as identical in regards to the designs of similarities and conflicts;
3.   The circumstances are accessible;
4.   Meaningful connections between circumstances can be made accurately by the professional, and
5.   The professional can produce and talk about new details through cross-case analysis.

2.4.1   Cross case approaches

Several well-known cross-case analysis approaches and techniques are usable to the case study researcher. Ragin (1997) for instance, depicts between variable and case-oriented research as two approaches to cross-case comparisons. In variable-oriented research, variables take centre stage; that is, the outcome observed in the cases varies across observations and causes appear to vie with one another. The events are picked out in advance with an eye toward randomness or the level to which they exemplify the universal population. The goal is to explicate why the cases vary. Variable-oriented approaches to cross-case analysis is a challenge to conduct because fair comparisons are hard to reach and the multitude of constituents that are related with social phenomena are much too numerous to disentangle.

Case-oriented researches, commonalities across multiple examples of a phenomenon may contribute to conditional generalizations (Miles and Huberman, 1994). The researcher can thus show that the issues in the cases selected are in fact enough alike to be treated as instances of the same thing. The key question of interest in the case-oriented researcher is in what ways the cases are likewise. Consequently, particular stress is devoted to the case itself instead of on variables across cases.

Besides that this study will adopt the process-tracing method as a function of its cross case methodology, where in this method, the progression of events that may have contributed to an upshot in a single event is traced (George and Bennett, 2005). Process-tracing forces the researcher to see alternative ways through which the outcome could have occurred and it proposes the possibility of mapping out one or more potential causal paths that are coherent with the final result. The cross - case analysis allows the researcher to produce a topological theory by charting the repertoire of causal paths that reveal given outcomes as well as the conditions under which they happen. In process-tracing, all the intervening steps within a lawsuit must be anticipated by a hypothesis or else the hypothesis is amended. Process-tracing generally takes the shape of a detailed tale in which the unfolding of a level is theoretically oriented.

On these lines, Engaging in cross-case investigation broadens the examiner's mastery past the single instance. It incites the specialist's creative ability, prompts, new inquiries, uncovers new measurements, makes choices, creates models, and builds beliefs and utopias (Stretton, 1969). The Cross-case investigation, likewise empowers detailed analysis analysts to outline the mix of variables that may have helped the results of the case, look for or develop a clarification concerning why one case is diverse or the same as others, comprehend baffling or interesting discoveries, or further understandable the ideas, meditations, or hypotheses found or acquired from the first instance. Cross-case investigation improves

the scientists' abilities to take in how connections may exist among discrete cases, gather learning from the first case, elaborate and create ideas (Ragin, 1997), and manufacture or test hypothesis (Eckstein, 2002). Likewise, cross-case examination permits the analyst to look at shells from one or more contexts, groups, or assemblies. This gives chances to gain from distinctive cases and assemble basic proof to adjust approach.

3 CHAPTER THREE: LITERATURE REVIEW

- Introduction
- Knowledge management
- CRM
- CRM and KM
- Marketing theories
- Marketing campaigns
- Online Marketing tools

3.1 Introduction

Organizations passing over to knowledge management (KM) in the past, as it was internally easily managed, and was an easy surgical procedure; they set about realizing the importance of understanding their customers better by supplying online data services due to the increasing importance of using the Internet in conducting business in a novel environment.

The uniting of their database to the Web will motive organizations to consider Information Technology (IT) -built CRM systems to be utilized in many sectors, as the quick evolution of the customer knowledge revolution; knowledge management process has become very essential to create an efficient and effective relationship with customers.

The purpose of KM in CRM is important for achieving customer satisfaction. The effort of integration of KM process and CRM process is a novel research area and, therefore; scientific research and literature about it remain limited. Yet the impact of KM process on CRM process remains under exploration and narrative.

In getting up to this event, this research investigates the relationship between KM process and CRM process of four web-based companies (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand) to be undertaken in this study to investigate antecedent variables associated with these firms' adoption of online CRM tools based on knowledge management in their selling endeavors.

3.2 Knowledge Management (KM)

KM in the spheres of information systems, business administration, management, and information sciences is taking on an important role in the integration processes of these fields (Alavi, M., and Leidner, D., 1999). Recently, other fields to have started contributing to KM research; these include computer science, media, marketing, and customer relationship management.

A problematic term, knowledge management is often with little consensus regarding its definition in avoiding it's completely (Bhatt, 2001), rather than focusing on specific aspects of the case such as knowledge, innovation (Costello, 1996). Besides that others argue that KM is related to concepts such as organizational memory and organizational learning, and is identified as a set of management activities that aim at designing and moving upon the cognitive operations of knowledge creation and integration. As one of the most influential organizational practices, knowledge management includes the processes of sharing knowledge (Kautz, K., & Mahnke, V., 2003). Therefore, knowledge management comprises a wide range of practices used in an organization to identify, share out, create, interpret, and enable

adoption of experiences and insights; either embodied in individuals or embedded in organizational processes or practice since its establishment (Serenko, Alexander; Bontis, Nick; Booker, Lorne; Sadeddin, Khaled; Hardie, Timothy, 2010). Therefore, knowledge management is a vital step to organizations for the following reasons:

1. Addressing the issues related to developing, managing and maintaining the technical infrastructure that are needed to receive and share knowledge.
2. Raising business performance by maximizing the usage of information and cognition as well as maintaining its learning capacity to remain innovative and competitive (Mau, 2005).

Knowledge management definitions have been summarized by Jennex (2007) to indicate that knowledge management can be defined as reusing of knowledge to improve organizational effectiveness by providing the appropriate knowledge to those that need it when it is needed, hence, knowledge management is expected to have a positive impact on the system that improves organizational effectiveness.

Literature on knowledge management has been brushed up and synthesized the critical success factors (CSFs), into a structured set of 12 KM CSFs. CSFs were ordered based on the number of surveys identifying the (CSF) (Jennex, M.E. & Olfman, L., 2005). The following CSFs were identified from 31 studies looking at 78 KM projects:

- A knowledge strategy that identifies users, sources, processes, storage strategy, knowledge, and links to knowledge for the KMS;
- Motivation and commitment of users, including incentives and training;
- Integrated technical infrastructure, including networks, databases/repositories, and computers, software, and KMS experts;
- An organizational culture and social scheme that supports learning and the sharing and use of knowledge;
- A common enterprise wide knowledge structure that is clearly articulated and easily understand;
- Senior management support, including allotment of resources, leadership, and providing training;
- Learning organization;
- Thither is a clear destination and intention for the KMS;
- Standards are made to assess the impacts of the KMS and the role of knowledge as well as verifying that the correct knowledge is being captured;
- The search, retrieval, and visualization functions of the KMS support easy knowledge use;

- Work processes are designed that incorporate knowledge capture and use; and
- Security/protection of knowledge.

The feats of knowledge management focus on the organisational objectives of improving the organizational performance, the competitive advantage, innovation, sharing the learned lessons, integrations and the organizational continuous improvement. These efforts overlap with the organizational capability of learning, and may be distinguished from that by a greater focus on the management of knowledge as a strategic asset by encouraging the sharing of knowledge, besides that knowledge management efforts can help individuals and groups to share valuable organizational experiences and insights, to reduce redundant work and to avoid reinventing the wheel, to reduce training time for new employees, to retain intellectual capital as employees' turnover in an organization, and to adapt to changing environments and markets (McAdam, R. & S. McCreedy, 2000), (Thompson, Mark P. A.; Walsham, Geoff, 2004).

The objectives of knowledge management according to Andriessen (2004a) and Andriessen (2004b) are:

- To avoid re-inventing of the wheel in organizations or reduce duplication of knowledge-based activities. Basically the intent is full knowledge utilization;
- To facilitate continuous innovation that can be capitalized; and
- To increase people competencies and thus organizational competencies that would eventually lead to greater competitiveness

Knowledge management process focuses on knowledge flows and the process of creation, sharing, and distributing knowledge (Figure 1-1). Each of knowledge units of capture and creation, sharing and dissemination, and acquisition and application can be facilitated by information technology (Silwattananusarn, 2012).
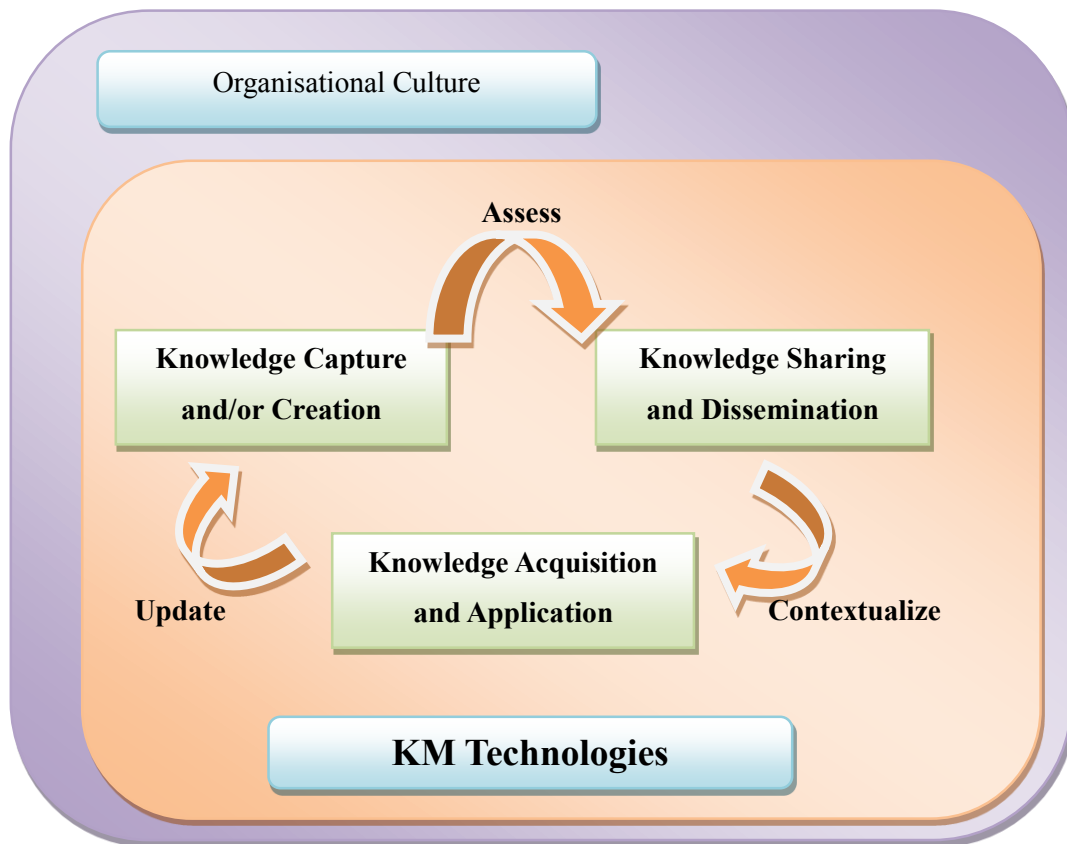
Figure (3.1): KM Technologies Integrated KM Cycle (Source: Dalkir, K., 2005)

This approach, in a world entering the knowledge economy by leading all business organisations in the world, in general and in Jordan in particular, towards the implementation of knowledge management, must establish a full and comprehensive analysis of the sector's current status and the sector's future expectations by applying the following steps:

- Increasing the effectiveness and the efficiency of the organization by encouraging design makers and top management in implementing knowledge management.
- Spreading the public awareness of the importance of knowledge management concept, and to attempt to form a better understanding of how knowledge management could be approached effectively.
- Analysis of the current organizational structure, and identify the challenges that constitute obstacles in implementing knowledge management.

- Testing the impact of the organizational culture factors separately, and to reduce the gap between the current and the expected status in the implementation of knowledge management.

Therefore, this research will contribute in drawing a full map of the organizational culture and the organizational structure and their impact in the implantation of knowledge management in the research case study.

3.3   Customer Relationship Management (CRM)

In managing developments of the company's interactions with customers, customer relationship management (CRM) is a widely implemented strategy as a procedure of preparation and gathering up data associated with customers to enhance the relationship between an organization and its customers as an aimed goal through developing customer acquisition processes, customer retention processes, and customer expansion processes. Furthermore, CRM has been limited as the strategy and the infrastructure for making customer loyalty (Azani, C., & Khorramshahgol, R., 2005).

Furthermore, customer relationship management is viewed as a complete strategy and procedure of acquiring, maintaining, and partnering with select clients to produce superior value for the company and the customer (Parvatiyarl, A., & Sheth, N. J., 2001), and watched as a procedure by which an organization expands the customer information to improve loyalty and retain customers. Thus, the objective of the CRM is to obtain, develop, and keep customers (Choy, K. L., Lee, W. B., & Lo, V., 2003), and assumed to be the core competency and the major competitive advantage of a particular organization.

Thereby, and by introducing knowledge management concepts, systems, and tools into the organization customer relationship management competency, as well as supercharging the secondary or supporting processes or competencies in order to substantially improve corporate competitiveness, there are two major areas to consider in terms of strengthening the customer relationship management competencies i.e. customer relationship management function or competency upgrade, and supporting process competency development. The three phases in which CRM can help to support the relationship between a business and its customers are, to:
- Acquire: A CRM can help a business in acquiring new customers through excellent contact management, direct marketing, selling and fulfilment.
- Enhance: A web-enabled CRM combined with customer service tools offers customers excellent service from a team of trained and skilled sales and service specialists, which offers customers the convenience of one-stop shopping. (James A. O'Brien & George M. Marakas, 2009).

- Retain: CRM software and database enable a business to identify and reward its loyal customers and further develop its targeted marketing and relationship marketing initiatives.

Marketing and customer orientation principles increasing influence motivated customer relationship management to adopt the value-added problem solving and customized services. However, the ultimate customer relationship management principle is to build customer loyalty and lifetime patronization.

3.4   The Relationship between Knowledge Management and Customer Relationship Management

Knowledge management as an approach used to capture, create, and apply knowledge will make the customer relationship management processes successful, therefore knowledge management has been considered as an expertise that is widely recognized as having a significant impact on business performance (Goh, 2005). Furthermore, CRM and KM have been recently gaining wide interest in business environment (Gebert, H.,Geib, M., Kolbe, L., & Riempp, G. , 2002), as both approaches focus on re-allocating resources to supportive business activities in order to gain competitive advantages despite the fact that both concepts are currently treating mostly as separate research areas.

Both KM and CRM are of prime significance for every business decision maker and Information Technology (IT) professionals. Consequently, the availability of large data on customers due to new technology tools has created opportunities as well as challenges for businesses to leverage the data and gain a competitive advantage (Lin, Y., Su, H. Y. & Chien, S. , 2006).

In addition, KM is essential for CRM because it can help the organizations enhance their services, and respond rapidly to their customers' need Organizations need to enhance the processes with customers to identify relevant activity fields for KM to improve these processes. Additionally, customer knowledge and customer satisfaction are being very important for tracking the success of CRM applications (Mithas, S., Krishnan, M. S., & Fornell, C., 2005)

From a theoretical perspective, it is important to determine whether the association of CRM applications with the improvement in customer satisfaction is mediated by an improvement in customer knowledge (Belbaly, N., Benbya, H., & Meissonier, R., 2007).

The new product development projects require efficient strategies that are needed for creating a quick and better response to customers' needs (Rowley, 2005). Moreover, the value of KM and CRM is recognized by many leading companies. KM is important for all kinds of business because it can help the companies improve their services and respond to their customers who, in turn, lead to customer satisfaction (Lin, Y., Su, H. Y.,& Chien, S. , 2006).

For the consideration of this paper, we can assume that customer relationship management is identified as the core competency and a major competitive advantage of a particular enterprise.

We are also seeking to bring out knowledge management concepts, arrangements, and tools into the system to augment their customer relationship management competency, as well as supporting processes or competencies in order to substantially improve corporate competitiveness. And Customer Knowledge Management (CKM) as the optimization of the organizational and business processes that facilitates the creative activity, diffusion and use of client knowledge in pursuit of organisational objectives (Bueren, A., Schierholz, R., Kolbe, L., & Brenner, W. , 2005). Touching on this notion, it has been indicated that systems require to focus on three sorts of knowledge in CRM processes (Bueren, A., Schierholz, R., Kolbe, L., & Brenner, W., 2005):

1. Organizations need to understand the requirements of customers in order to address them. This is mentioned to as knowledge about customers.
2. Organizations need to collect information about the customers in their interaction with the enterprise which also requires knowledge for customers.
3. Customers possess knowledge about the products and services they utilize as well as roughly how they perceive the offerings they purchase.

This knowledge from clients is valuable as it feeds the measures to improve products and services table (3.1) represents Customer Knowledge Management versus KM & CRM.

Table (3.1): Customer Knowledge Management versus KM & CRM.

	KM	CRM	CKM
Knowledge needed	Employee, team, company, network	Client Database	Client experience and creativity
Targets	Sharing knowledge about customers among employees	Mining knowledge about the client	Gathering, sharing and extending knowledge of (inside) the customer. Person or group experiences with applications, competitor behavior, and possible future resolutions.
Role of customer	Passive, recipient of product	Captive, attached to product by loyalty schemes	Active, knowledge partner.

Corporate role	Promoting knowledge hoarding employees	Captivate customers	Emancipate customers
Line of work objectives	Efficiency and speed increases, Avoidance of re-inventing the wheel	Customer base looks after, maintaining our customers	Collaboration with customers, joint value creation
Conceptual foundations	Customer acquisition and retention	Customer satisfaction guarantee	Customer success, innovation, organisational learning
Business metrics	Performance against budget; High customer retention rate	Operation in terms of customer satisfaction and loyalty	Performance against competitors in innovation and growth; Contribution to Customer success stories

Source: International Conference on Economics, Business and Marketing Management IPEDR vol.29 (2012)

3.4.1 Web-Based Customer Relationship Management

E-CRM is a newly developing customer-oriented business philosophy that reorients online enterprise operations in order to improve customer satisfaction, dedication, and retention (Adebanjo, 2003; Pan & Lee, 2003). E-CRM is not just about technology, but also about aligning business operations with customer strategies (Rigby, Reichheld, & Schefier, 2002).

Anton (1996) stresses the management of client relations with "continuous improvement or re-engineering for better serving and competitive placement. Behavioral and affective elements are likewise seen as playing a major role in e-CRM (Vellido, Lisboa, & Meehan, 2000; Romano & Fjermestad. 2003; Wu & Wu, 2005; Raihan & Hamid, 2005).

Many facets discussed in the literature about e-CRM correspond to stages in Oliver's cognitive-affective-cognitive-action model for loyalty (1980).

The first stage in this model is cognitive loyalty. In this phase, a consumer may continue to patronize a store for a compelling reason.

Still, loyalty at this phase is driven purely by functional characteristics, and the consumer's commitment towards the fund may not be real secure.

The following stage is affective loyalty. This is stronger than cognitive loyalty because the consumer's affective loyalty is an affair of both prior attitudes about the store followed by satisfaction. The tertiary stage is cognitive loyalty. At this phase the consumer accepts a commitment to buy.

This point is exemplified by repurchase intentions and natural processes such as recommending the computer memory to others.

The last point is action, loyalty, in which the customer purchases items from a store on an ongoing base.

3.5 Marketing Theories

Both stages of marketing, theory and practice; are having a wonderful development which is underlined by the economic and social processes that take place in the universe, such as globalization, the remarkable advances in technology, deregulation, market fragmentation, the levers of power customers. Yet, in retrospect, marketing has gone forth and began to be deepened both as a skill and as a practice in countries with developed economies. Their retail markets were characterized by an abundance of wares and services that were planned to put consumers in a situation to choose the product best suited to their own demands. Equally true is the fact that marketing was spreading slowly, "only in the 50s its expansion began to be" explosive" concerning enterprises and other organizations from economies with various social organizations and degrees of growth" (Balaure 2002).

Integration of marketing within developed economies has created a misleading depiction of the cases that was levied at that time, accrediting the opinion that the abundance of consumer goods and services underpin the grounding and the evolution of merchandising.

In the practice of marketing, as Philip Kotler notes (2008), the following tendencies can be observed:

1. Acceleration - the constitution needs to contrive their own constructions and procedures in order to react quickly to changes in the job environment;
2. Globalization - companies should "think globally and work locally";
3. Organizational redesign - staff training towards the creation of value for the customer and eventual elimination of disagreements between departments;
4. Outsourcing;
5. Partnerships with suppliers and customers - that way the company seeks to add value to goods and service;
6. Mergers and acquisitions - benefice for achieving economies of scale and economies of diversity;
7. Focusing - finding the most profitable business and consumer segments and focusing on them;
8. Benchmarking - analyzing other companies' best practices for improving their own society;
9. The transition from active ownership to brand holding (Kotler P. 2006);
10. Shift from mass marketing to the personalized one;

11. Companies no longer operate on a single market, but as well in cyberspace;
12. The impression of "market share" represents replaced with the "buyer share ".

Nevertheless, it is now necessary to have a fresh circle of tools such as client relationship management, creation of complex databases, direct marketing, e-selling, profitability analysis by product, segment, channel marketing or customer, experimental marketing (Kotler, 2006).

3.6   Marketing Campaigns

The efforts of a company or a third-party marketing company to increase awareness for a particular product or service, or to increase consumer awareness of a business or organization. A marketing campaign has a limited duration.

3.7   Online Marketing Tools

Merchandising is a critical and complex business performance with the mere goal to maximize revenue and support operations. With such a broad goal, marketing integrates an array of line operations, technologies and strategies. The Internet is one of the many puppets that can be applied to marketing.

More and more businesses are incorporating the Internet into their business-to-business marketing strategies.

Purpose of the Internet as a consumer-oriented marketing tool has been common nowadays for over five years and has become accepted as a standard marketing tool by the immense majority of jobs.

As well, the Internet, electronic mail, and newsgroups are being widely used for business-to-business marketing plans.

Properly interpreted, it can be harnessed to complement your existing marketing practices, extend operations and create fresh opportunities. The key to successful selling over the Internet is applying the forces of the medium to proven traditional marketing practices in modern ways.

Traditionally the four Ps of marketing, Price, Product, Place, and Promotion, have been considered the cornerstones of a firm's marketing strategy. The role of the Web as a business-to-business or business-to-consumer marketing tool includes what many regard as the fifth P of marketing, 'People' and fits within this traditional fabric.

It is applied as a promotional tool, a distribution channel; sometimes it is the product, and its use may affect price. Common marketing tactics for the Internet do explore how the Internet expands the scope of job sellers. Much of Internet marketing is similar to traditional marketing.

Whether Internet-based or traditional, each marketing operation normally addresses what we will call the five constants of marketing:

1. People: Who are the target customers?
2. Price: What pricing and payment policies will customers accept that yield sufficient revenues?
3. Product: What products fit their needs?
4. Place: Where will the business operate (e.g. geographic, virtual)?
5. Promotion: What forms of promotion will gain your clients (e.g. advertising, brochures, sales staff, and customer support)?

4 CHAPTER FOUR: OVERVIEW OF THE SELECTED SYSTEMS

- Introduction
- Research selected systems
    - *Microsoft dynamics*
    - *Salesforce.com*
    - *Sugarcrm*
    - *Oracle on demand*
- Cross case mapping
- Cross case analysis
- CRM Marketing campaigns survey
- Marketing campaigns overview

4.1 Introduction

An empirical study is a mode of acquiring knowledge by means of direct observation or experience, and is a research that its information is deduced from direct observation. The empirical observations from the experiment can be analyzed quantitatively or qualitatively. This work serves to answer empirical questions through quantifying the evidence by making sense of the qualitative data observed in the four selected organizations.

Many genes have contributed to strengthen the use of knowledge management in achieving the best E-CRM tools in the advertising campaigns of the Web-based CRM organizations upon a cross case analysis of the four companies (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand). Knowledge management as a systematic and integrated process or processes that coordinate the activities of the organization related to the creation and processing of knowledge and including storing, sharing, distributing, developing, and publishing it by individuals and groups in order to achieve the main goals of the organization, in other words it's the process by which organizations create and use the institutional and collective knowledge (Rastogi, 2000: 41).

For that, this study will explore with its cross case methodology the selected four systems upon the knowledge management procedures that were identified as:

- Generating Knowledge

- Knowledge sharing

- Knowledge Applications

And figure (4.1) establishes the study experimental procedures in putting on the empirical cross case analysis of the four selected organizations (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand); in analyzing the use of knowledge management processes in the marketing campaigns of these web-based CRM systems.
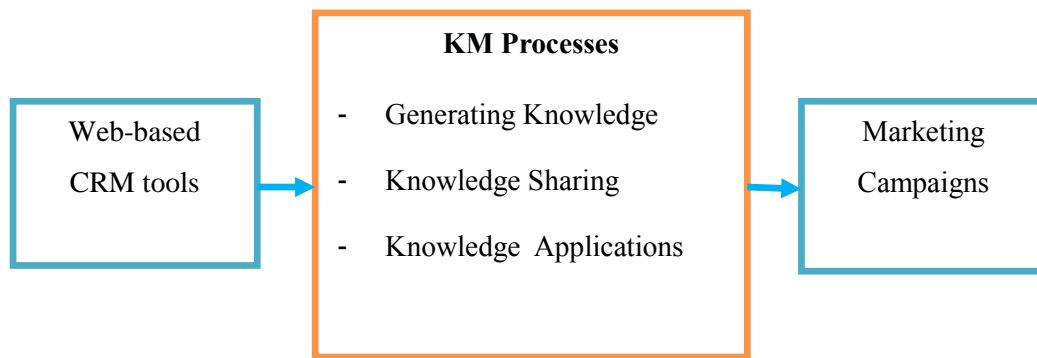
Figure (4.1): Role of knowledge management processes in using web-based CRM tools on the marketing campaigns

4.2 Research Selected Systems

Many web-based CRM companies using many and different tools in its ad efforts based on knowledge management processes; four companies were chosen to be empirically examined in this subject area, and they are:

4.2.1 Microsoft Dynamics

Microsoft Dynamics is a line of enterprise resource planning (ERP) and customer relationship management (CRM) software applications. Microsoft Dynamics applications are delivered through a network of reselling partners who provide specialized services. Very few facilities are made without the aid, and cost, of these resellers. In its 2013 update, the first since 2009, Microsoft removed many capabilities of users to access features such as report-writing without the intervention, and cost, of members of their approved reseller network.

Microsoft Dynamics CRM Online equips business professionals with access to client information through a familiar Microsoft® Outlook® experience to help ensure rapid user acceptance and fast results through a customer relationship management (CRM) solution that provides the following capacities:

1. Marketing—flexible segmentation tools, simplified campaign management capabilities, intuitive response tracking, and insightful analytics.
2. Sales—full lead to cash visibility, leadership and opportunity tracking, streamlined approvals, and real-time sales forecasts.

3. Client Service—tools that simplify case management, streamline escalations, improve knowledge sharing, and enable more efficient report management.
4. Extended CRM—a flexible fabric that helps organizations creates custom business applications and manufacture solutions.
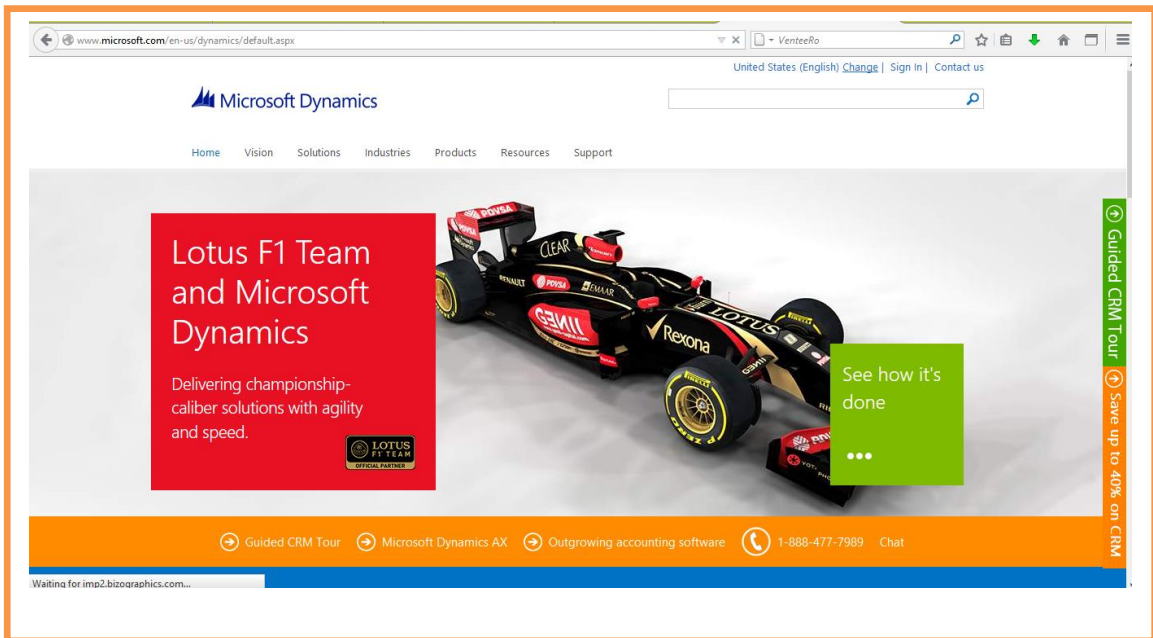

Figure (4.2): Microsoft Dynamics homepage face

Microsoft Dynamics CRM is recognized as a market leader by many third-party experts and analyst firms such as Gartner and Forrester. As an online service, the solution also presents the additional benefits of:

1. Rapid time to value—deploy solutions rapidly and add users at a moment's notice.
2. Character of service—guaranteed uptime backed by a 99.9 percent service level agreement and online and phone backup.
3. Cost predictability—pay-as-you-get pricing that permits you to change capital expenditures into predictable operating expenses.
4. Managements implicitly—ongoing application monitoring and maintenance, and software upgrade.

4.2.1.1 *Microsoft Dynamics Vision*

Uniting people and technology to deliver amazing customer experiences by creating a family of devices and services for individuals and businesses that unites and empowers people at home, at work and on the go, for the activities they value most. Business solutions from Microsoft, powered by Microsoft Dynamics, play an important and unique function in this scheme. As the world gets smaller and more complicated, technology plays an important role enabling a commercial enterprise to link up their people, with their suppliers and most importantly with their clients. Microsoft Dynamics energizes and empowers these connections with real time data and collaboration. Enabling people to push their imagination while also helping organizations manage their end-to-end business processes, and figure (4.3) depicts the vision window of Microsoft Dynamics.
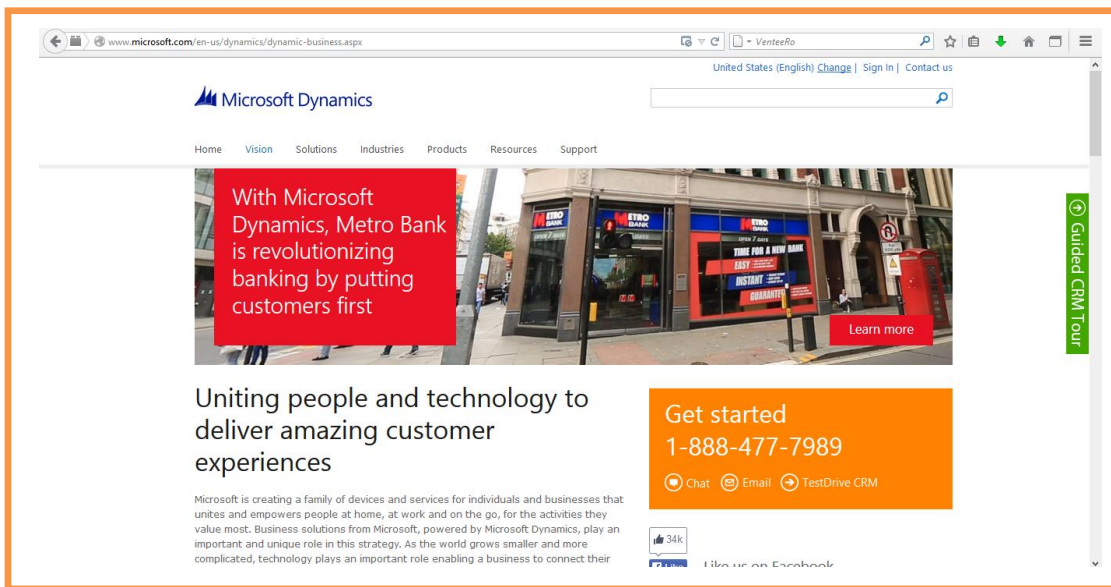

Figure (4.3): Microsoft Dynamics vision

4.2.1.2 Microsoft Dynamics Products

A suite of easy-to-learn and easy-to-use business solutions tailored to market, designed for line size, and dedicated to growing business through happy customers. Microsoft Dynamics offers a full range of

software focused on delivering business insights that matter to both their clients and their customers, from customer relationship management (CRM) software to enterprise resource planning (ERP), from supply chain management to business intelligence and reporting, and figure (4.4) shows the product window of Microsoft Dynamics.
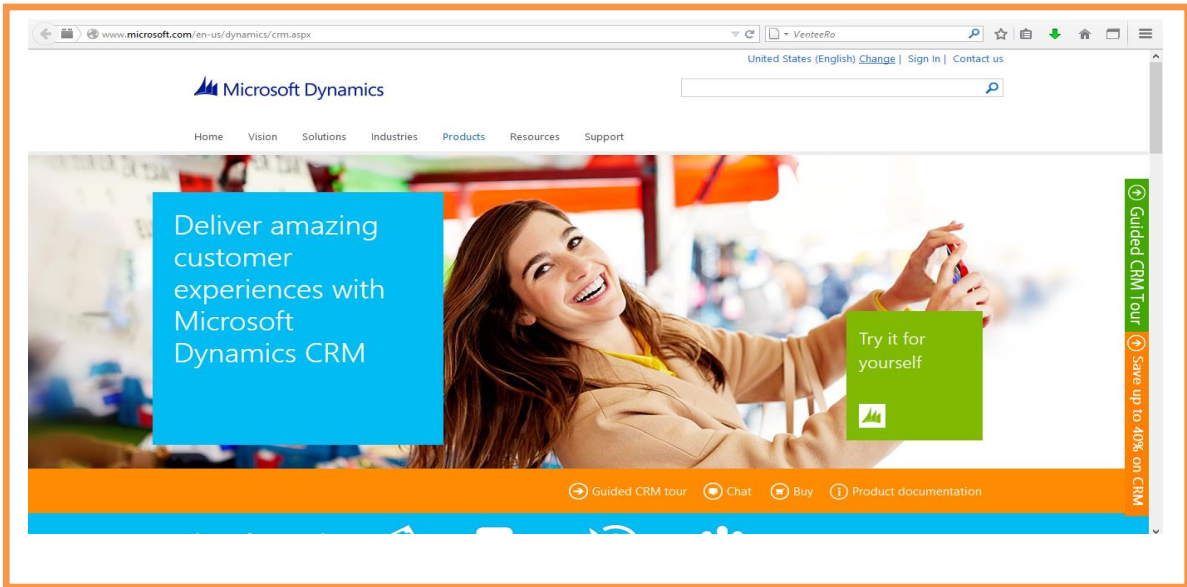

Figure (4.4): Microsoft Dynamics products

4.2.2   Salesforce.com

Salesforce management systems are information systems used in CRM marketing and management that help automate some sales and sales force management functions. They are often combined with a marketing information system, in which case they are often called customer relationship management (CRM) systems.

Sales force management systems are essentially the same thing as *sales force automation system* (SFA).

A SFA, typically a part of a company's customer relationship management system, is a system that automatically records all the stages in a sales process. SFA includes a contact management system which tracks all contact that has been made with a given customer, the purpose of the contact, and any follow up that may be needed. This ensures that sales efforts are not duplicated, reducing the risk of irritating customers. SFA also includes a sales lead tracking system, which lists potential customers through paid phone lists, or customers of related products. Other elements of an SFA system can include sales forecasting, order management and product knowledge. More developed SFA systems have features

where customers can actually model the product to meet their needs through online product building systems. This is becoming more and more popular in the automobile industry, where patrons can customize various features such as colour and interior features such as leather vs. upholstered seats, and figure (4.5) shows the homepage window of Salesforce.Screenshots of this system are added to the Appendix page No.(79-84) as an example of sign-in and creating marketing campaign process.
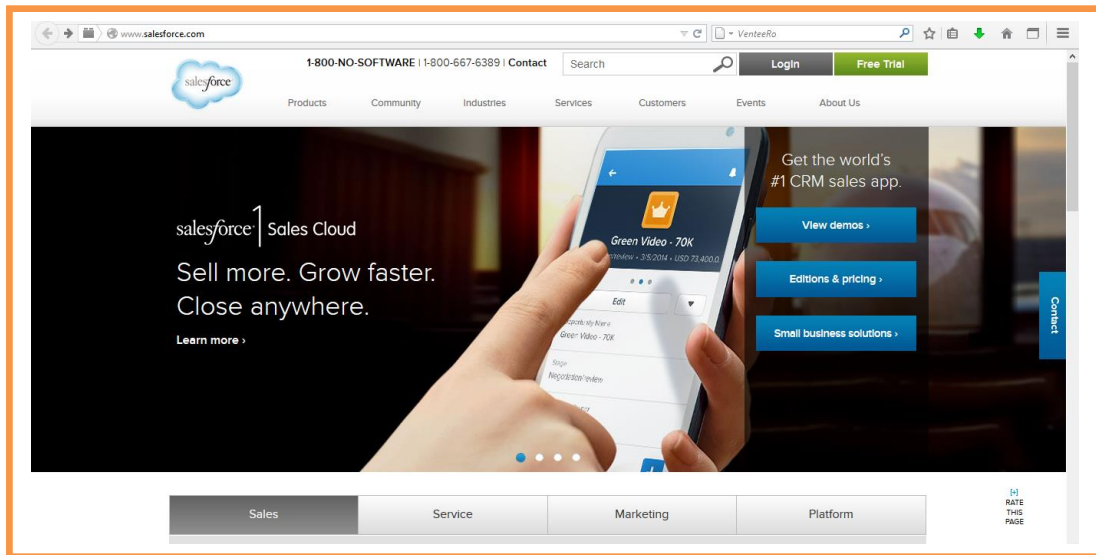

Figure (4.5): Salesforce homepage face

4.2.2.1   *Salesforce Overview*

Salesforce.com is the enterprise cloud computing leader. Our social and mobile cloud technologies—including our flagship sales and CRM applications—help companies connect with customers, partners, and employees in entirely new ways, and figure (4.6) below shows the overview window of Salesforce.
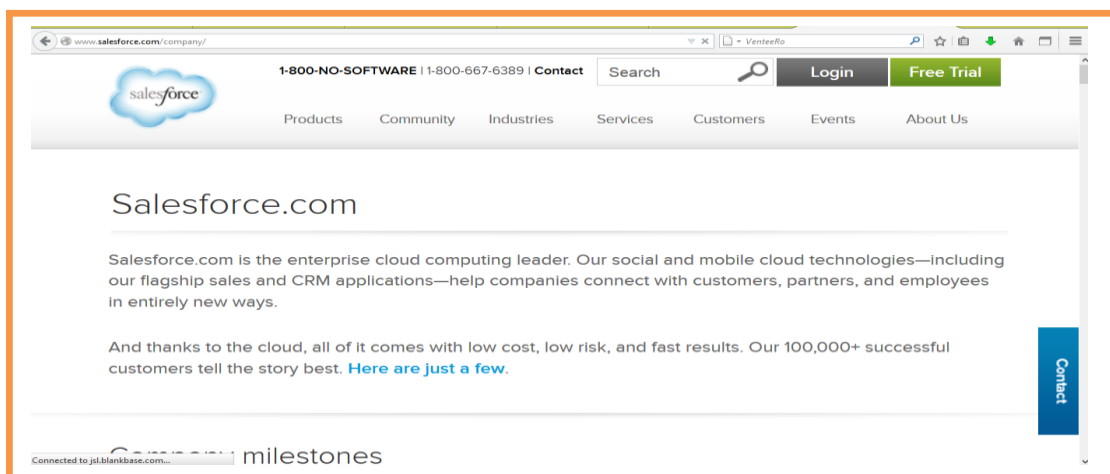

Figure (4.6): Overview window of Salesforce

4.2.2.2   *Salesforce Products*

Salesforce Platform, a new world, and a better way to sell, where field sales sells only on mobile devices, and inside sales is fed nothing less than the best leads, its sales managers knowing which deals will close, and when a world where lead and contact information is always fresh and complete, and everyone performs like an "A" player, and figure (4.7) shows the overview window of Salesforce.
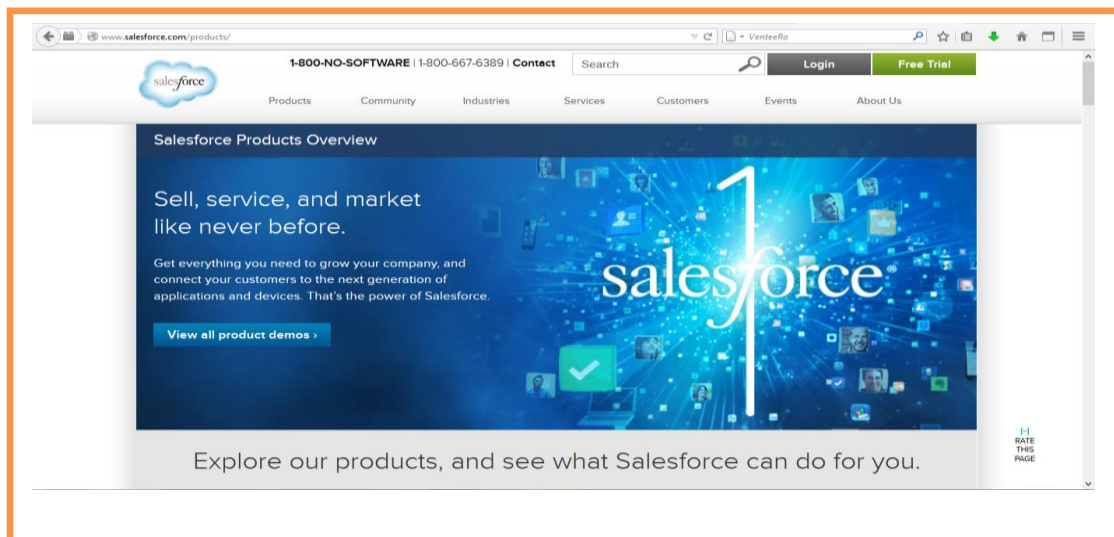

Figure (4.7): products overview window of Salesforce

4.2.3   Sugarcrm

A software company based in Cupertino, California, it produces the web application Sugar, also known as Sugarcrm, which is a customer relationship management (CRM) system that is available in both open-source and Commercial open-source applications. In February 2014, Sugarcrm announced that they would no longer be releasing new open source versions of their Community Edition application and this would now be a bug fix only application. Sugar's functionality includes sales-force automation, marketing campaigns, customer support, collaboration, Mobile CRM, Social CRM and reporting, and figure (4.8) shows the homepage window of Sugarcrm.

Figure (4.8): Sugarcrm homepage face window

4.2.3.1 Sugarcrm Overview

Sugarcrm enables businesses to create extraordinary customer relationships with the most modern and affordable CRM solution in the marketplace. Picked out by leading market analysts as a "visionary" company, Sugar is deployed by over 1.5 M individuals in 120 nations and 26 speeches.

Sugar is set to fully unleash the promise of CRM with our innovative CRM system designed for every soul who engages with customers: sellers, vendors, customer support agents, receptionists, and administrators. The society is saving a wholly transformed, individualized CRM user experience that is immersive, engaging, and visceral. Sugar fuses the straightforward simplicity, mobility, and social aspects of a consumer app with the business process optimization of conventional CRM, and figure (4.9) reads the overview window of Sugarcrm.
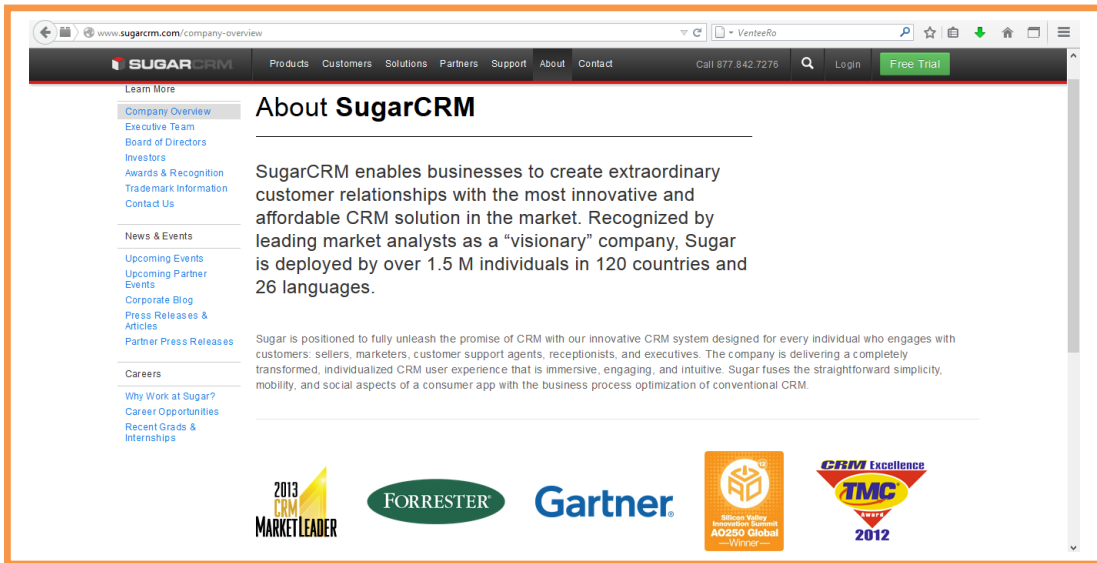
Figure (4.9): Sugarcrm overview window

4.2.3.2   Sugarcrm Products

Transform sales with the information needed to put customers first. Sugar UX™ gives contextual intelligence for better, faster, and smarter decisions. With Sugar's complete customer view will prepare to occupy with each story, build stronger relationships, and enjoy greater sales success and figure (4.10) depicts the product window of Sugarcrm.
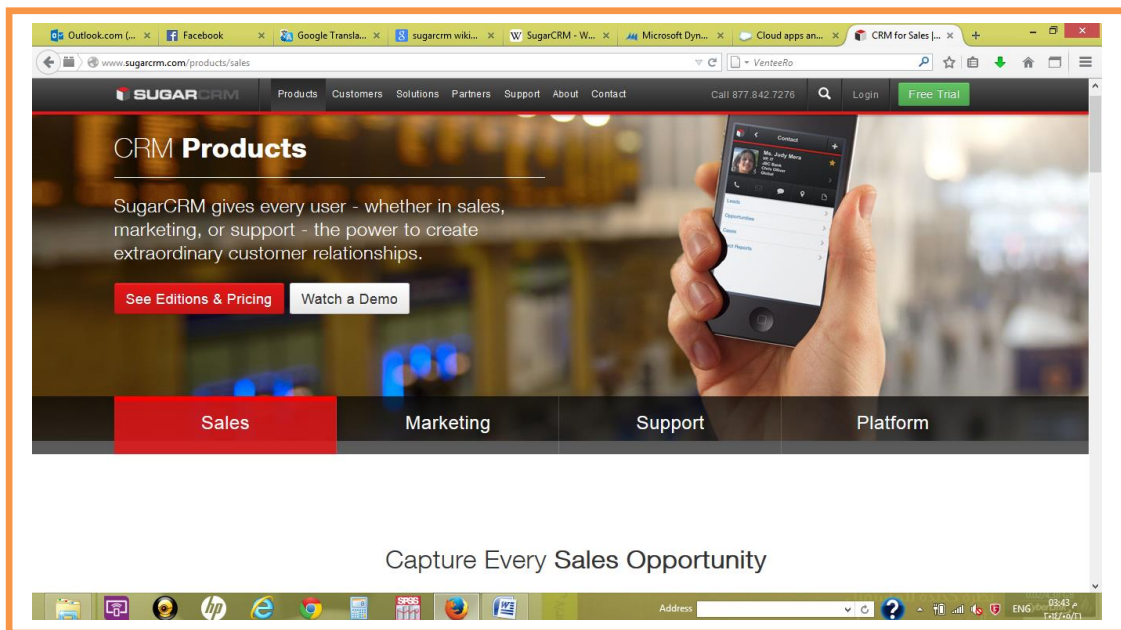

Figure (4.10): Sugarcrm products window

4.2.4   Oracle on demand

For more than three and a half decades, Oracle has been the leader in database software. And as it has further developed technologies and acquired best-in-class companies over the years, that leadership has expanded to the entire technology stack, from servers and storage, to database and middleware, through applications and into the cloud.

It all started out when Larry Ellison saw an opportunity other companies missed: a description of a working prototype for a relational database. No company had committed to commercializing the technology, but Ellison and co-founders Bob Miner and Ed Oates realized the enormous job potential of the relational database example. None of them realized at the time that the company they formed would change the expression of business computing.

Throughout its history Oracle has proved it can build for the future on the foundation of its innovations and its knowledge of customer challenges and successes analyzed by the best technical and business minds in the world, and figure (4.11) shows the home page window of Oracle.


Figure (4.11): Oracle homepage face window

Oracle continually applies good corporate governance rules.. The composition and activities of the company's Board of Directors, the approach to public disclosure, and the availability Of ethics and business conduct resources for employees exemplifies the company's loyalty to good corporate governance practices

4.3   Cross Case Mapping

The cross case analysis will be conducted upon knowledge management processes (generating knowledge, knowledge sharing and knowledge applications), see figure (4.13), and observing a three phase mapping (similarities, differences and CRM tools), upon knowledge management processes with the CRM tools reflecting the ad efforts.
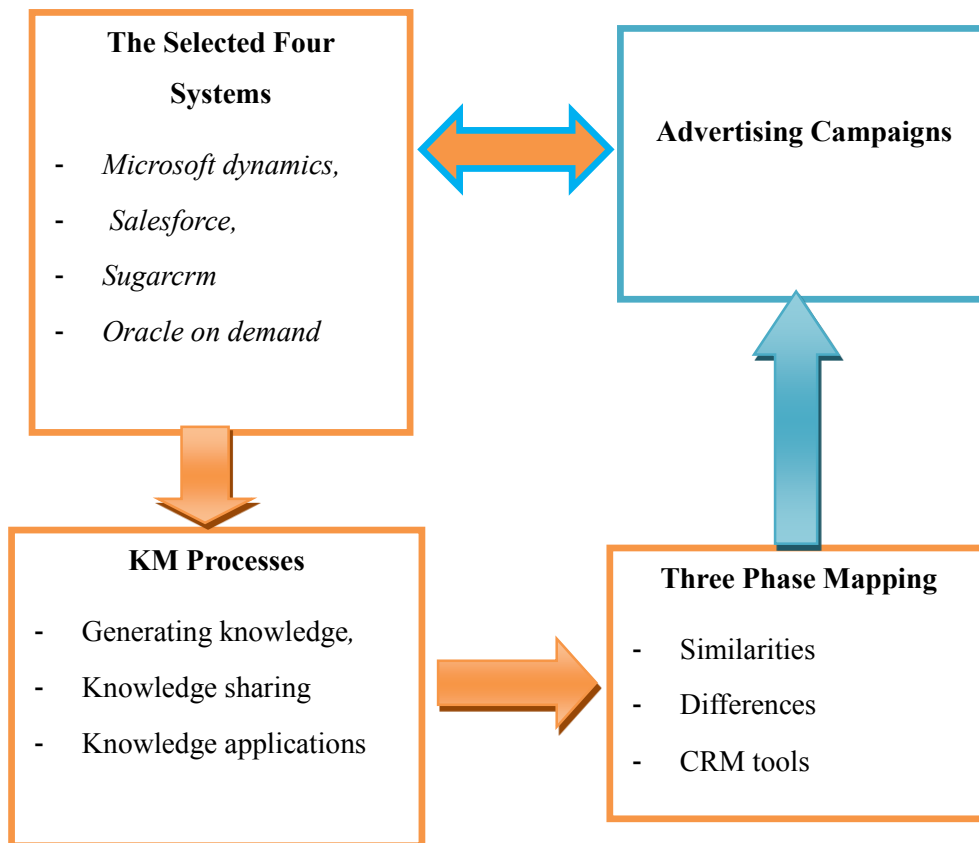
Flesh (4.12): the two phase mapping of the selected systems upon knowledge management processes with the CRM tools reflecting the ad efforts

4.3.1   Similarities Map

For exploring the purpose of knowledge management processes (generating knowledge, knowledge sharing and knowledge applications), in the CRM marketing efforts for each selected system of the four selected organizations (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand), a trial period (sign up) is borne by the researcher under the figure of (Ali AlHayali), under which similarities could be defined as indicated in table (4.1).

System	Similarities of the selected four systems (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand)
Generating Knowledge	- Putting up a subject tree to categorize interests based on organization's unique needs. - Firms can create and update their own centralized knowledge repository known as the Knowledge Base. - Capturing all information from social channels or Chatter in knowledge articles.
Knowledge Sharing	- Gain critical knowledge available to everyone by catching it in articles CRM. - Sharing relevant public data with clients. - Sharing insightful news and opinions on product characteristics and benefits.
Knowledge Applications	- Make a customized library for job data. - Scheduling capabilities that facilitate identifying the needed people and creatures. - Clients can get answers 24/7 via the customer portal.

Table (4.1): Similarities of the selected four systems upon knowledge management processes

4.3.1.1   Similarities Cross Case Analysis

Knowledge management, CRM software's and tools as a avail for the four selected systems makes it easy to capture, review, catalogue, and access information, so brokers can obtain what they require when they ask it. Knowledge management system includes these key features in the four selected organizations:

- **A solution encyclopedia: The four selected system's knowledge management, CRM software's and tools as a service, enables building a storehouse of info to help agents address issues promptly and accurately.** As a consequence, customers get better settlements

and their service team improves efficiency while trimming down costs, and figure (4.14) shows the generating knowledge process upon the four selected system's knowledge management CRM software's and tools.
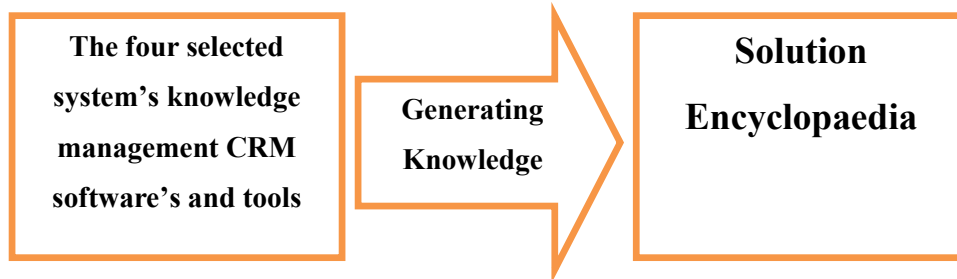

Figure (4.13): generating knowledge process upon the four selected system's knowledge management CRM software's and tools

- **A private and public knowledge base: With this feature, knowledge management, CRM software's and tools as a service; sharing expertise with clients via an online channel can be easily borne, by applying the four selected systems' CRM tools to make a client portal where he can print his entire knowledge base, or just parts of it.** With this powerful knowledge management tool at their disposal, customers can find the results they need without agent assistance.

- **Intuitive browsing and searching: knowledge management, CRM software's and tools as a service categorizes solution in a manner that makes sense for your system.** Our knowledge management organization has advanced search capabilities that assist brokers and clients quickly identify the correct solutions, so even new agents can answer customer issues quickly.

- **Solution administration: The four selected system's knowledge management, CRM software's and tools as a service includes a multilevel solution-review process to guarantee the quality of knowledge-base information.** It's gentle for anyone to produce solutions with knowledge management, CRM tools, but only authorized users can survey and publish them.

- **Solution workflow: By tailing knowledge management, CRM software's and tools as a service to support specific work flow rules and automated knowledge-base management.** Alerts and automatic task assignments notify appropriate administrators when prompt action is taken.

- **Multilingual solutions: With knowledge management, CRM software's and tools as a service, global service teams can support clients in their local languages.** Each geography

can write (or translate) and preserve results for common service issues, so customers receive consistently excellent support no matter what language they talk.

- **Proposed solutions: When self-service users file support cases, the knowledge management, CRM software's and tools as a service can automatically present related solutions to help resolve their issues now.** Suggested solutions also help agents find answers, so new agents can service customers like old pros.
- **Answer ratings: knowledge management, CRM software's and tools as a serving contains powerful analytics that enable monitoring the strength of several knowledge management, CRM tools and solicit feedback from customers as they approach and explore answers.**

4.3.1.1.1 Wizards Similarities

A star is a peculiar kind of user assistance that guides the user through a chore by utilizing a series of dialogue boxes. experts are especially useful for complex or infrequent tasks that the user may experience trouble learning or doing, or for tedious, frequently performed tasks.

Following are similar models of standard wizards of the four the selected organizations (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand); available in Taos:

- The Report Wizard simplifies report generation process by leading the user through the steps necessary for creating a report. The wizard provides identical functionality to the dictations in the Report node's shortcut menu.
- The Class Wizard guides users through all the required selections necessary to create a class, and appropriate them to inherit from an existing system class.

Besides that, the total function of all the selected systems in this theatre of operations (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand) is the ability to analyze data to gather meaningful insights. The four web-based CRM systems' report wizards are tools that help users rapidly and easily produce advanced reports with charts, instrument panels and drill-through capabilities. Then, with theses web-based CRM systems report wizards, users can:

- Group and summarize data.
- Share with the entire organization.
- Add visuals such as charts and boards.
- Various filters let you bore down into the data.
- Run reports from lists and forms of underlying entities.
- Download and edit using advanced instruments.

4.3.1.1.2 Functions Similarities

Customer Relation Management (CRM) web-based systems have many different functions that all can be extremely beneficial to any business. CRM web-based organizations can process a company function to pass over and organize its contacts with its current and prospective clients. CRMs store all client information in a single database. This helps businesses avoid customer data errors. It can also improve services for customers to use customer contact information for target markets. Customer Relation Management web-based systems integrate all the primary business activities. This pulls in everyday business operations much more effective. Customer Relation Management Systems prioritize customers using their purchase history. This leaves a society to define which clients are most important and target most of their efforts towards. This is held for that Customer Relation Management web-based organizations maximize the value of a company's existing client infrastructure. This scheme enables employees in every department to understand and recognize the customer's complete history. Enabling employees to review customer account allows them to analyze customer activity and can help to sell more of their product or service to that client. Employees can manage this by viewing customers that have previously ordered large amounts of their merchandise or service. On the other hand it can aid a company realize when they have lost a client. A society can do this by calling the past history of the customer. This is helpful so that a society does not waste time on a customer that they have already missed. It makes the pouch as well serve to deflect any complaints or issues that a customer may have received in the past to compensate it for the time to come. Another aspect of Customer Relation Management web-based schemes is it can help turn prospective clients into loyal clients. All of these functions help companies maximize the value of their existing customers as well as winning new clients. Thus, in this study the four selected organizations (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand) meet with these functional similarities:

- **Advanced User Personalization: The four systems let users configure their workplaces to fit their specific offices and data demands.** Personalizing a workspace allows users to specify the default pane and tab that display when they open any of the four web-based CRM online selected systems. Users also have mastery over what links appear in the workplace view, how many records appear in lists, how numbers and dates display, and the language they want to employ. Lastly, users can combine these personalized features with the new dashboard feature to make a personalized dashboard for their default view.

- **Character-based Forms and Views: The four web-based CRM selected system displays forms and surveys based on user roles.** This role-tailored design ensures that users receive quick access to the relevant data they require. Character-based plans and views also prevent users from viewing data that they are not authorized to see.

- **Better Configuration Capabilities: The four web-based CRM selected systems have incorporated numerous small but important features into Microsoft Dynamics CRM 2011 that make it easier for commercial enterprises to configure solutions, either for themselves or third-parties.** Key characteristics are: custom activities and communications; field-point protection; data auditing; tailored from experience; and an improved knowledge base.
- **Customizing and Sharing:** The four web-based CRM selected systems introduce what the vendor calls 'solutions,' which are ways to save customizations and share them with others. Users can progress to a solution or import a solution produced by a developer outside the system. A managed solution can merely be cut by a specific user. An unmanaged one can be edited by any user with an appropriate function. A settlement can have version numbering, relationships with entities and other components, and security features based on user roles.
- **Interactive Process Dialogs: Dialogs help companies to gather and process information using step-by-step scripts.** At the most basic level, companies can use dialogs to guide customer interactions and inner procedures. At some other level, dialogs can be utilized to increase performance and versatility by incorporating workflow logic. This logic invokes automated tasks using the responses a customer or user names during a dialogue script.
- **Marketplace: The four web-based CRM, online selected systems Marketplace is an online solutions catalogue that helps developers accelerate and reach out their web-based CRM Online implementations**.

4.3.1.2   *Similarities of Supplementing KM with CRM Tools with Case Management*

Speedy resolutions: With comprehensive knowledge management, CRM software's and tools as a service, a customer may sometimes require extra help. That's why the four selected systems' CRM knowledge management is complemented by a wide array of tools for case management. But as knowledge management, CRM software's and tools as a service aggregates expertise from throughout the company, multi-user support, queue capabilities appropriately route customer inquiries from every groove.

Assignment and workflow: With Web-Based CRM tools of the four selected organizations, each customer inquiry is automatically and immediately routed to the right group or rep for the fastest and best solution. The agent handling the shell can usually determine a solution using knowledge management, CRM software's and tools as a service and respond to the client with a useful reply.

Escalation: knowledge management, CRM software's and tools as a service is linked to advanced escalation functionality. This way, inquiries don't fall through the cracks at peak points and the organization proceeds to meet service-level arrangements. When clients are unable to solve their queries using our self-service knowledge management system, assistance from a support broker is only a click away.

Service-level management: Whether questions are done immediately through the four selected systems' knowledge management, CRM software's and tools as a service or by expert assistance, meeting or exceeding service-level arrangements are a must. The four selected systems show agents the level of service a customer should experience and helps managers analyze and improve service quality and compliance accordingly.

4.3.2 Differences Map

4.3.2.1 *Salesforce vs. Microsoft*

The current nation of any diligence in terms of features and functionality is nothing more than the outcome of a serial publication of conclusions reached by several people inside the vendor organization, including executives, merchandise managers and developers over the track of time, and then as to analysis the decisions that were reached at both salesforce.com and at Microsoft over the years and what drove these decisions, and the table (4.2) demonstrate the conflicts between the two schemes.

Table (4.2): Differences between Salesforce.com and Microsoft dynamics

Differences	*Salesforce.com*	*Microsoft dynamics*
Startup, Building the system	The company did not own any of its own technology; the development team delivered to build everything within its application from the primer upwards.	The company already had a spacious change in line engineering.
CRM User Interface	As a web application, at that place are many design characteristics that are optimized for a browser experience, rather than for a desktop application experience.	Microsoft in the beginning made the determination to include Windows-style drop down menus within its browser-based CRM application.

Browser and Device Support	The company did not possess its own browser and therefore based the application's browser support on client preferences.	With applications only support Microsoft's own browser, Internet Explorer, the company recognized that it required to add funding for non-IE browsers such as Safari.
Browser Navigation	Application to replace whatever is in the current browser window with whichever view or record is chosen within that window.	Browser windows are models; there was naught to preclude a user from opening a heavy bit of browser windows.
Upgrades and Updates	The approach of making upgrades and patches automatic — upgrades occur without customers having to conduct specific actions.	Customers needed to break through a significant upgrade process to go to the following variation.
Database Technology	Applications are multi-tenant on both the application side and on the database side.	With CRM Online, each customer has their own SQL Server instance.
Reporting	The company builds its reporting engine from scratch, this signified that the types of reports that customers were demanding dictated the evolutionary course of the reporting engine.	Using SSRS as the CRM reporting engine rather than create CRM-specific coverage.

4.3.2.1.1   *Microsoft Dynamics CRM Analysis*

The top three reasons in considering Microsoft Dynamics CRM on-premises is the potential for more-attractive total cost of ownership versus cloud based offerings, integration with Microsoft Outlook and leverage of the Microsoft technology stack, such as SharePoint and SQL Server.

4.3.2.1.1.1   Top Three Strengths

1. Provides accessibility for Microsoft Outlook clients.
2. Integration with the Microsoft technology stacks assets; Microsoft SharePoint for collaboration and content management, Microsoft Lync for Presence and Instant Messaging and Microsoft Visual Studio for extended customization.
3. Power View is a wing of Microsoft SharePoint Server 2013; contains better reporting capabilities, specifically data visualization and display.

4.3.2.1.1.2   Top Three Cautions

1. Relies on solution providers to supply a complete reset (e.g., incentive compensation, sales configuration and pricing management); users need to manage their own vetting of suppliers.
2. Although Microsoft offers a native Outlook Client for Microsoft Dynamics CRM, for direct server-to-server integration, clients must use partner solutions for Microsoft Exchange Server to Microsoft Dynamics CRM server synchronization to manage projects, calendar appointments and contacts.
3. New Multi-device Mobile Solution is a cloud service only and has an incremental list price cost of $30 per user; if a sales system requires to sustain a multi-device solution on-premises, it will demand a partner solution.

4.3.2.1.2   Salesforce.com CRM Analysis

With the strong brand, innovation and proven track record, Salesforce.com have a strong ecosystem of ISVs; however, adding multiple solutions to fill salesforce.com's functional "white point" can be expensive. Salesforce.com has customers in whole regions of the globe, but it needs to continue to increase its geographic support outside its core military capability in North America.

4.3.2.1.2.1   Top Three Strengths

1. Offers a proven infrastructure and reliability.
2. Continues to push innovation by increasing the breadth and capabilities available for social media technology, Chatter and mobile offerings, such as the iPad.
3. Offers improved application agility, due to the simplicity of use of the Force.com platform, which is usable by technically sophisticated business analysts.

1. Unlimited Edition is expensive; evaluate the low-end editions before committing to the Unlimited Edition.

2. The Social Enterprise License agreement represents an opportunity for customers who will experience large subscriber growth and leverage the entire salesforce.com suite; however, companies should be careful not to overbuy subscriptions and functionality they will not take.

3. Relies heavily on App-Exchange vendors provide a perfect answer (e.g., lead management, incentive compensation, sales configuration and pricing management); users need to perform their own analyses of App-Exchange providers, and should not assume that salesforce.com has vetted them.

4.3.2.2 Salesforce vs. Oracle CRM on Demand

Table (4.3) shows the Differences between Salesforce.com and Oracle CRM on Demand.

Table (4.3): Differences between Salesforce.com and Oracle CRM on Demand

Differences	*Salesforce.com*	*Oracle CRM on Demand*
Startup, Building the system	The company did not own any of its own technology; the development team delivered to build everything within its application from the primer upwards.	Bringing on a software-as-a-service (SaaS) CRM market within Sales Force Automation (SFA) tool.
CRM User Interface	As a web application, at that place are many design features that are optimized for a browser experience, rather than for a desktop application experience.	Oracle acquired Upshot CRM which offered a more robust user interface than the legacy Siebel On Demand product.
Browser and Device Support	The company did not possess its own browser and therefore based the application's browser support on client preferences.	Continues funding for popular browsers such as the latest versions of Google Chrome, Firefox and Android.
Browser Navigation	Application to replace whatever is in the current browser window with whichever view or record is chosen within that window.	Oracle On Demand provides an automatic pre-built integration to Oracle ERP systems. Therefore, the usage of Oracle ERP at the back-end will appear to CRM

		end users that they are in the same arrangement when they process orders.
Updates and Upgrades	The approach of making upgrades and patches automatic — upgrades occur without customers having to conduct specific actions.	Multitenant architectures call for customers to share the same application server and database.
Database Technology	Applications are multi-tenant on both the application side and on the database side.	SFA data capture
Reporting	The company builds its reporting engine from scratch, this signified that the types of reports that customers were demanding dictated the evolutionary course of the reporting engine.	Reporting details the entire story-building process and explains how to apply the powerful features available in Answers On Demand,

4.3.2.2.1 Oracle on demand CRM Analysis

Getting informed, intelligent, and real-time business decisions is critical in interpreting what's going on across your system. Oracle CRM on Demand's fully interactive analytic capabilities let gain a rich penetration into the business. By combining real-time and historical pre-built and ad hoc reports as well as customizable dashboards, Oracle CRM on Demand is the only CRM solution that delivers actionable insight at the velocity of business.

4.3.2.2.1.1 Top Three Strengths

1- Back office ERP products in addition to CRM systems, this translates into a much better integration between the CRM organization and core ERP functions.
2- Oracle CRM on Demand provides a solid SFA system ranging from sales rep productivity to customer Centricity.
3- Oracle CRM on Demand enables reps to cover the common stops for any paid news report in the system, including fundamental data about the account, contacts, activities, opportunities, tips, sales orders and assets.

4.3.2.2.1.2   *Top Three Cautions*

1- Outlook integration needs to be fixed (e.g., the ability to mark tasks as individual, and an easier client configuration process).

2- System performance of reporting tools, and difficulty reporting on custom objects.

3- Analytics are rich, but performance is a challenge for more-complex reports.

4.3.2.3   *Salesforce vs. SugerCRM*

Table (4.4) shows the Differences between Salesforce.com and SugerCRM.

Table (4.4): Differences between Salesforce.com and SugerCRM

Differences	Salesforce.com	SugerCRM
Startup, Building the system	The company did not own any of its own technology; the development team delivered to build everything within its application from the primer upwards.	SugarCRM has four different mutations of their commercial product: Professional, Corporate, Enterprise, and Ultimate. They claim in a liberal, open-source solution titled Community.
CRM User Interface	As a web application, at that place are many design characteristics that are optimized for a browser experience, rather than for a desktop application experience.	Sugar is open source and completely customizable and flexible.
Browser and Device Support	The company did not have its own browser and therefore based the application's browser support on customer preferences.	Google Chrome, Firefox, Internet Explorer and Safari.
Browser Navigation	Application to replace whatever is in the current browser window with whichever view or record is chosen within that window.	Dynamically generates the HTML pages that the web browser displays when you click certain buttons on a WWW page.
Updates and Upgrades	The approach of making upgrades and patches automatic — upgrades occur without customers having to conduct specific actions.	SugarCRM does weekly database backups.

Database Technology	Applications are multi-tenant on both the application side and on the database side.	SugarCRM users to mix information from internal ERP systems, societal nets and information services and with SugarCRM, every customer has his own database.
Reporting	The company builds its reporting engine from scratch, this signified that the types of reports that customers were demanding dictated the evolutionary course of the reporting engine.	SugarCRM has no limitations to the number of custom modules and work flow.

4.3.2.3.1   *Sugercrm Analysis*

Sugar comes with the ability to configure many different system settings to personalize the way Sugar works. The System section is totally available to administrative users and can be accessed via the Admin screen

4.3.2.3.1.1   *Top Three Strengths*

1. Sugar can be hosted at Sugar, at any 3[rd]party of the client's choice.
2. SugarCRM, through the Sugar Exchange, owns more than 5,000 integrations with other applications.
3. SugarCRM has no limitations to the number of custom modules and work streams.

4.3.2.3.1.2   *Top Three Cautions*

1- Compatibility mode for some client browsers is not backed up.
2- Sugar is somewhere between light and lacking when it comes to business intelligence (BI).
3- Sugar suffers from limited market awareness outside the open source community.

4.3.3   CRM Tools Comparison

Table (4.5) depicts the comparison between the four selected organizations (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand), based on a side –by-side comparing.

Table (4.5): Side –by-side comparison of the selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*)

Variables		Microsoft dynamics	Salesforce	Sugarcrm	Oracle on demand
Host Options	Cloud-Based	✔	✔	✔	✔
	On-Premise	✔	⊖	⊖	✔
	Mobile Access	✔	✔	✔	✔
Contact Management	Maximum Users	Unlimited	Unlimited	⊖	Unlimited
	Maximum Contacts	Unlimited	Unlimited	⊖	Unlimited
	Maximum Storage Space	Unlimited	Unlimited	⊖	Unlimited
	Email Integration	✔	✔	✔	✔
	Import Data	✔	✔	✔	✔
	Customer Portal/Account	✔	✔	✔	✔
	Customer Interactions	✔	✔	✔	✔
	Contact Timelines	✔	✔	✔	✔
	Workflow Automation	✔	✔	✔	✔
	File Sharing	✔	✔	✔	✔
	Invoicing	✔	✔	✔	✔

Sales & Marketing	Sales Collaboration	✓	✓	✓	✓
	Forecasting	✓	✓	✓	✓
	Order Tracking	✓	✓	✓	✓
	Product Purchase Reports	✓	✓	✓	✓
	Inventory Management	✓	✓	✓	✓
	Sales Automation	✓	✓	⊖	✓
	Email Marketing	✓	✓	⊖	✓
	Competitor Tracking	✓	✓	⊖	✓
Help & Support	Online Tutorials Phone	✓	✓	✓	✓
	Email	✓	✓	✓	✓
	Social Media	✓	✓	✓	✓
	Live Chat	✓	✓	⊖	✓
	FAQs	✓	✓	✓	✓
Browser Full Compatibility	Internet explorer 11	✓	✓	⊖	⊖
	Firefox	✓	⊖	✓	⊖
	chrome	✓	⊖	✓	✓
	Apple Safari	✓	⊖	✓	⊖

4.4   CRM Marketing Campaigns Survey

Customer relationship management (CRM) for marketing automation enables companies to engage customers across channels, build pipeline, and demonstrate the impact of marketing. Marketers can plan, execute, and measure multichannel marketing campaigns from start to finish. They can manage, nurture, and score leads to generate more revenue, while streamlining marketing planning and execution and gaining a true view of markets.

4.4.1   Microsoft Dynamics Marketing

Marketing is changing faster than ever before. Marketers own more of the customer journey and must engage customers in new ways across new channels to deliver amazing experiences, while tracking the results of their marketing investments.

Microsoft Dynamics Marketing helps unleash the marketing potential. Customers can easily plan, execute, and measure campaigns from start to finish. Bring their marketing vision to life—engage customers across channels, build pipeline, and demonstrate the impact of their marketing and figure (4.15) shows the Microsoft Dynamics marketing starting page.
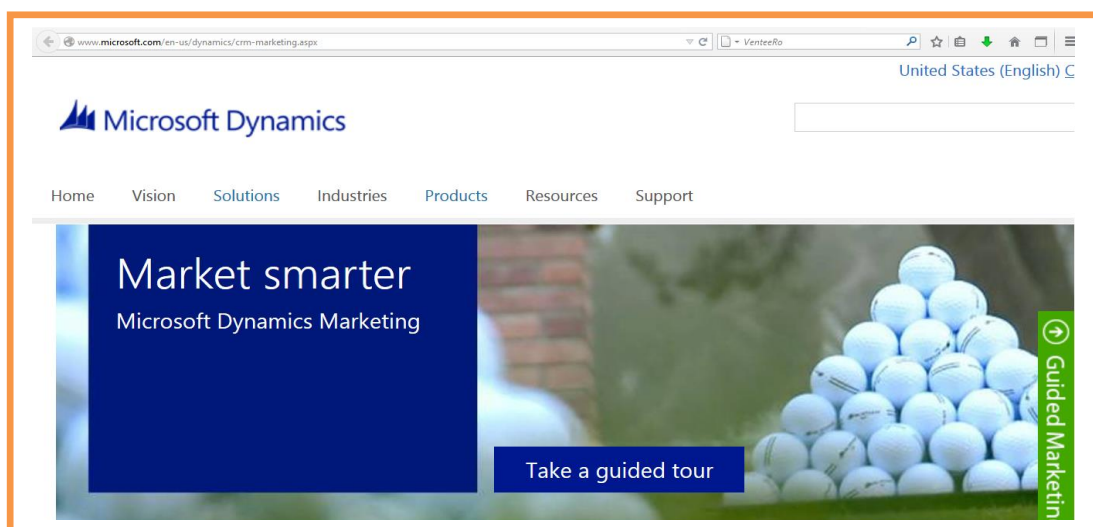
Figure (4.14): Microsoft Dynamics marketing starting page

4.4.1.1   Microsoft Dynamics Campaign management

Microsoft Dynamics Marketing campaign designer lets customer drag to create and manage campaigns in a single window—across email, social media, events, and direct mail, by engaging customers with personalized, multichannel campaigns, and generates more sales-ready leads with advanced segmentation and lead scoring. Nurture leads with multi-stage, multi-wave programs, and score leads based on behaviour, segmentation, and time. Integrate with Microsoft Dynamics CRM to combine sales and marketing funnel and to better serve sales.

4.4.1.2   Microsoft Dynamics marketing resource management

A single system allows planning and managing budgets, collaborating with teams and agencies, and managing content. Align marketing team and plan around a single source of truth, while providing consistent, thoughtful experiences for customers.

4.4.1.3   Microsoft Dynamics Social marketing

Track the share of voice across the social web, including Twitter, Facebook, and YouTube. Monitor global sentiment and brand presence. Gain visibility on strategic initiatives on social media.

4.4.1.4   Microsoft Dynamics marketing campaign processing methodology

The Marketing work area within CRM provides basic marketing features and gets started with running marketing campaigns. Microsoft Dynamics Marketing takes clients to the next level by providing deep customer insights and behavioural data to help plan and analyze campaigns, greater functionality for automation and collaborating with team members, and social media integration. The following table shows the detailed step-by-step starting methodology:

Table (4.6): Detailed step-by-step starting methodology

Category	Details
Import contacts, accounts, and leads	Gets customer records into Microsoft Dynamics CRM, and add these to marketing lists so as to target campaigns
Creating marketing lists	Group accounts, contacts, or leads into a targeted marketing list, then creating a marketing list easily with the search functionality in Microsoft Dynamics CRM, so as to find all customers in a particular area, and add them to the member list

Track the campaign response	Record the replies you get from the potential customers in response to a specific marketing campaign to make sure teams can act on the responses. Measure the success of specific campaign activities based on their response rates.
Reports to assist monitoring and analyzing marketing activities	Campaign Activity Status: Use this report to track a campaign. The report displays a summary for one campaign. Campaign Comparison: Use this report to identify the most and least successful campaigns. Campaign Performance: Use this report to track the progress and status of campaigns.

4.4.2   Oracle CRM On Demand Marketing

Whether to have a full staff of marketing professionals or a lean do-it-all demand generation team, Oracle CRM On Demand Marketing provides organizations with a smart, simple, integrated solution for managing marketing campaigns and activities. Oracle CRM On Demand Marketing provides a full suite of capabilities to automate the complete marketing process, from designing inbound and outbound campaigns through lead management and lead nurturing to measuring marketing ROI. With built-in e-mail and Web marketing, easy-to-use automation, and built-in analytics, Oracle CRM On Demand Marketing provides the best of enterprise marketing automation with the benefits of complete integration with CRM.

4.4.2.1   Oracle CRM On Demand Marketing Management

While Oracle CRM On Demand offers strong SFA data capture; its marketing management is built almost exclusively around email-based marketing campaigns therefore offering very limited campaign management tools for other types of media. Beginning with the creation of the campaign, Oracle CRM On Demand tracks only the most basic data. Obvious variables such as the start and end date for the campaign are conspicuously missing from the campaign's default configuration and must be handled as custom fields. Also lacking is the ability to set campaign budgets and objectives. Only a few basic fields can be tracked by default such as manually inputted cost fields and revenue fields. On the other hand, the creation of campaign content is available in Oracle CRM On Demand via industry standard HTML based content editor tools for building rich email content. Like a standard mail editor, Oracle CRM On

Demand allows for mail merge to personalize the content in the message. In building a target list, Oracle CRM On Demand allows you to use query tools to select accounts from your database to include in a campaign. Oracle CRM On Demand assumes that your lists will be built from standard accounts or businesses data only so if the hope is to query targets based on previous purchases or customer support calls, it will be necessary to reflect this data on the account or make arrangements for customization of the data model so these elements are accessible. Email sending can be scheduled. It has come to our attention that several Oracle CRM On Demand customers have been assessed a surcharge for emails sent via the system, so be careful that you review this in your agreement with Oracle before signing.

4.4.3 Salesforce.com Marketing Management

Marketing management is one of the weakest modules of the Salesforce.com hosted solution. The marketing solution is included at Enterprise Level and above (or charged as an extra for other editions). The marketing module provides very limited support for conducting marketing campaigns via email. In fact, the Salesforce.com helps guide states:

"Mass email is designed for small-scale sales and support mailings, not for marketing purposes. As recommend that to use a third-party email-execution vendor to send emails for marketing campaigns."

The add-on vendors are available through the AppExchange partners at additional (sometimes significant) cost. A related problem is the possible lack of integration of a third party solution back to Salesforce.com for record keeping. For example, you may want the sales organization to be aware of which email campaigns your contacts have been exposed to. Another option is to use Salesforce.com's mass email tool. This tool however is fairly basic and does not support the depth of functionality that is often required by many marketing professionals (link tracking, bounce management, read tracking, etc), plus the number of email communications that can be sent daily depends on which edition are used. It is important to ensure these limits are adequate for the frequency and size of campaigns that you plan on executing.

4.4.4 Salesforce.com Marketing Management

Sugar's Campaigns module can be used to create and manage email and non-email marketing and advertisement campaigns for your organization. Email-based campaigns can be used to send mass emails or a series of newsletter emails to individuals with whom you have an active or growing relationship. The results of each campaign are recorded to measure the success of your campaigns.

The Campaigns module contains a number of stock fields, which come out-of-the-box with Sugar. The below definitions are suggested meanings for the fields, but the fields can be leveraged to best meet your organization's needs. Users with administrator or developer access have the ability to alter, add, or remove fields via Admin > Studio. For more information on configuring fields, please refer to the Studio documentation in the Administration guide.

The options in table (4-6) in the Actions menu allow performing the following operations:

Table (4-7): Actions menu options

Menu Item	Description
Create Campaign (Wizard)	Opens the campaign wizard to create a new campaign
Create Campaign (Classic)	Opens the edit view layout to create a new campaign
View Campaigns	Opens the list view layout to search and display campaigns
View Newsletters	Opens the list view layout to search and display newsletter-type campaigns
Create Email Template	Opens the Email Templates edit view layout to create a new email template
View Email Template	Opens the Email Templates list view layout to search and display email templates
Set Up Email	For users with administrator access, opens the email setup for campaigns wizard
View Diagnostics	Displays your system's configuration status for sending email-based campaigns
Create Lead Form	Opens the Lead Form wizard to generate a web-to-lead form

5 CHAPTER FIVE: DISCUSSIONS AND RECOMMENDATIONS

- Introduction
- Role of knowledge management in CRM web-based marketing campaigns
- knowledge management influence on web- based marketing campaigns
- Conclutions
- Recommendations

5.1 Introduction

Companies in general have integrated their customer relationship management (CRM) and knowledge management (KM), as they realize that KM plays a key role in CRM implementations. This study analyzes the results of the empirical study upon the cross case analysis, and the performance outcomes of these KM efforts that have a remarkable role in the marketing campaigns of the four selected systems. For this function, the study will present the cross-case analysis solutions which are complemented by qualitative and quantitative data derived from a survey among the four web- based CRM selected systems.

To modify the organizational context with outcomes positive or minus, a successful CRM implementation should increase knowledge management capabilities, willingness to share data capabilities and to share information. Likewise, an unsuccessful implementation may run to an opposite event.

5.2 Role of knowledge management in CRM web- based marketing campaigns

Web-based CRM companies in general, and the four selected systems also have been eager to combine (CRM) and (KM) initiatives; especially in the marketing campaigns of their clients. These efforts have been defined as the 'customer knowledge management' (CKM) or the 'knowledge-enabled CRM' (Gilbert, Leibold and Probst, 2002; Geib and Riempp, 2002; Gebert, Geib, Kolbe and Brenner, 2003), therefore CKM is the utilization of knowledge *for*, *from* and *about* customers, in order to enhance the customer-relating capability (as the first party), with the organizations (the second party).

5.2.1 Knowledge management in marketing

Marketing campaigns and knowledge management overlap in many important ways, simply agreeing to the four selected systems, and the outcomes of the survey, there is too little overlapping in the actual pattern. Marketing efforts should be the primary provider for knowledge management, by providing views on customer demographics, psychology and behavior that might be of importance within customer transactions, relationship strategies and maneuvers.

Knowledge management should also be the primary provider of knowledge for marketing communications, knowledge enabling precise targeting of customers and choosing communication

channels, as well as creation of response-advertising materials; application of knowledge management as a role in marketing efforts is shown in table (5.1).

Table (5.1): knowledge management role in marketing campaigns

Part of CRM	Focus on	Knowledge needed	The role of knowledge management
CIM customer interaction management	Transaction between customer and company	knowledge about customers and their segments, based on how they respond to various activities undertaken by customer interaction management	can provide the company with the right information, at the right time and in the requested form for its customer, can improve sales efficiency, marketing efficiency and customer support
CEM customer experience management	transaction between customer and company	knowledge to understand what the expectations of a customer or customer segment are, and what will please the customer, as opposed to what would displease them in the course of a transaction, - knowledge is the knowledge necessary for understanding relative value, actual and potential of an individual customer or customer segment.	can provide knowledge that is used for customizing transactions to a customer, can provide knowledge for customizing additionally offered products and services
CSM customer success management	continued relationship with customers	knowledge enabling better understanding of customers and ways for motivating them, - knowledge of what a customer expects from their relationship with a company, what encouraged them to choose one company over another, - knowledge what encouraged them to participate in transactions with a particular company	can provide knowledge needed for researching customers' issues, their goals, together with their needs and wishes and due to the potential of this knowledge it is possible to determine the basic price of a product or service in a better and more precise way thus contributing to greater unit gain from that product

The Web-based CRM companies' knowledge management role capabilities are the most significant critical factor affecting CRM marketing campaigns (Croteau and Li, 2003). Therefore, and due to any poor solution, or any technology failures, many of these companies will face a hard time justifying CKM initiatives in today's business world (Rigby, Reichheld and Schefter, 2002; Yu, 2001).

Thus, the idea of combining KM initiatives with CRM activities has proven to bring about considerable benefits for both the costumer as the (first party), and the client as the (second party), when done correctly (Gibbert et al., 2002). The empirical survey's results in this study had formed insights into the actual status of the knowledge-based CRM initiatives affecting the marketing campaigns within these companies.

5.2.2 CRM Service Processes

A complete coverage of the CRM customer process consists of designed sub-processes with direct customer interactions, and they are distinguished as follows:

Campaign management which is the core marketing process that puts the aspects of relationship marketing into practice, and of course defined as the planning, realization and controlling processes of the of marketing activities that are forming the marketing campaigns that are directed into two levels:

1. The customer processes (as the first party);
2. The client processes (as the second party).

Usually, marketing campaigns are individualized (Peppers and Rogers, 1993) or aim at specific segments by means of different communication channels. Therefore, campaign management covers the *need articulation* phase of the customer process.

The aims of *sales management* are to find out the needs of potential or existing customers as comprehensive as possible, to advice the customer on possible alternatives for the satisfaction of the identified needs, to provide the customer with an offer, and to close a contract as the final step. Sales management addresses the *need articulation, evaluation and buying* phases of the customer process.

Service management can be referred to as planning, realization and controlling of services offered in the after-sales phase. Service management corresponds with customer process phases of *using and disposal*.

Complaint management is about receiving, processing and communicating the dissatisfaction articulated by the customer throughout the customer process (Stauss and Seidel, 2002). Complaint management is primarily concerned with the *using* phase of the customer process.

5.2.3 CRM Support Processes

These are processes with direct customer interaction which are *not designed* for a complete coverage of the customer process, but for performing support tasks in the context of CRM. In the context of this process type, two support processes can be identified as the main focus of *market research* is the systematic design, collection, analysis and reporting of data and results relevant for a specific marketing situation (Kotler, 2003, p. 129).

5.2.4 CRM Analysis Processes

These processes consolidate and analyze knowledge collected in other CRM processes. The results of the analysis will be handed over to other CRM processes as well as service innovation and creation processes in order to improve their efficiency.

As opposed to the management of leads, *customer scoring* aims at generating a shortlist of existing customers, which seem to be suitable for the offering of certain services or products. The goals are to exploit cross-selling potentials, to reduce contact costs and to increase customer satisfaction. *Lead management* comprises the consolidation, qualification and prioritization of contacts to potential customers.

Customer profiling is concerned with the analysis of available knowledge about customers in order to classify and characterize each customer individually. As opposed to customer profiling, *customer segmentation* deals with the clustering of homogenous customer groups, which have similar needs and requirements (Kotler, 2003, p. 9).

Feedback and knowledge management are responsible for collecting and analyzing knowledge from the customer, which can be used for the improvement of products and services as well as processes within a company.

5.2.5 CRM Management Processes

These processes comprise all entrepreneurial management tasks for design, control and development of CRM service, support and analysis processes (Salomann *et al*. 2011). In detail, the processes are as follows:

Multi-channel management comprises the integrated and coordinated development, design and control of product and knowledge flows to as well as from customers through different media and channels.

Performance Management is the control process of all CRM processes described above. It enables an integrated control and allocation of resources.

5.2.6 Knowledge Flows in CRM Processes

The CRM discipline's relationship with KM approaches and technologies has widely been recognized as a relevant field of research (Romano and Fjermestad, 2003; Fahey, 2001; Romano, 2000; Winer, 2001; Massey et al., 2001).

As CRM processes can be considered semi-structured or even unstructured, they reveal a high complexity as well as strong knowledge intensity (Eppler, Seifried and Röpnack, 1999). Since collecting, storing and distributing relevant knowledge for those CRM processes makes the deployment of KM techniques necessary, it is evident that an organization's KM capabilities play a key role in CRM success (Croteau and Li, 2003).

In this context, KM can be defined as "the process of critically managing knowledge to meet existing needs, to identify and exploit existing and acquired knowledge assets and to develop new opportunities." (Quintas, Lefrere and Jones, 1997) Likewise, CKM can be defined as the systematic handling and management of knowledge collected at customer interaction points which are required for the efficient and effective support of business processes (Geib and Riempp, 2002).

As a further concretization of this notion, we distinguish three kinds of knowledge flows that play a vital role in the interaction between an organization and its customers: knowledge *for*, *from* and *about* customers.

Firstly, in order to support customers in their buying cycle, a continuous knowledge flow directed from the company to its customers (i.e. knowledge *for* customers) is a prerequisite (Davenport and Klahr, 1998). Knowledge for customers comprises information about products, markets and suppliers (Garcia-Murillo and Annabi, 2002) and is primarily addressed by CRM service processes. This knowledge dimension also impacts the customer's perception of the service quality - which has been identified as an important determinant of satisfactory financial performance (Wang and Lo, 2004; Taylor and Baker, 1994; Spreng and Mackoy, 1996).

At the same time, knowledge *from* customers has to be incorporated by the company for product and service innovation, idea generation as well as for the continuous improvement of its products and services (Thomke and von Hippel, 2002; Kristensson, Gustafsson and Archer, 2004; Chesbrough, 2003). Capturing customer knowledge and involving customers in the innovation process can be achieved in various ways (Gibbert et al., 2002). For example, customers' knowledge about products, suppliers and market trends can be used via appropriate feedback mechanisms to enable a systematic improvement and innovation of products (Garcia-Murillo and Annabi, 2002; Gibbert et al., 2002).

The collection and analysis of knowledge *about* customers is certainly one of the oldest forms of KM activity in the CRM domain (Reichheld and Schefter, 2000). Besides the customer's master data and past transactions, knowledge about the customer encompasses the customer's present needs and requirements, future desires, connections, purchasing activity and financial capability (Davenport, Harris and Kohli, 2001; Day, 2000).

Knowledge about customers is collected in CRM service and support processes and analyzed in CRM analysis processes.

5.3 knowledge management influence on web- based marketing campaigns

The four selected systems define CRM as an interactive web-based approach to achieve an optimum balance between the organization and the customer in ordrer to achieve customer satisfaction and generate maximum profits , the marketing campaign should be planned according to the following standards:

- Acquiring and continuously updating knowledge on customer needs, motivations, and behaviour over the lifetime of the relationship, between the three parties.
- Applying customer knowledge to continuously improve performance through a process of learning from successes and failures.
- Integrating marketing, sales, and service activities to achieve the common goals.
- The implementation of appropriate systems to support customer knowledge acquisition, sharing, and the measurement of web-based CRM effectiveness.

And according to the four web-based selected systems, CRM processes with knowledge management can be classified into the following three categories:

- Operational CRM systems improve the efficiency of CRM delivery and support processes. They comprise solutions for marketing, sales and service automation of the campaign management systems, and of the systems for customer interaction centres.
- Analytical CRM systems store and evaluate knowledge about customers for a better understanding of each customer and his behaviour. They therefore support the CRM analysis processes.
- Collaborative CRM systems manage and synchronize customer interaction points and communication channels (telephone, email, and web).

The four Web-based CRM systems essentially process contains well-structured information, and customer contact data and master data. In contrast, KM systems support the collection, sharing, and use of less-structured information such as documents (explicit knowledge) and employees' implicit knowledge. This knowledge is especially needed in the CRM delivery processes to satisfy customer needs. For example, the marketing campaigns needs detailed knowledge of the products available in order to offer customer's effective consultation in respect of their needs, thus the results of this empirical study distinguished between four categories of web-based CRM tools upon KM systems:

5.3.1 Content:

This category comprises systems for the management, sharing, and use of semi-structured, digital content of the four selected systems, in particular document management systems and content management systems.

5.3.2 Competence:

This category comprises systems for the proactive management and location of implicit knowledge in employees' minds in the four selected systems. To support the utilization and development of implicit knowledge, employees' competencies can be determined and made available in skill management systems and expert directories.

5.3.3 Collaboration:

This category comprises systems that support collaboration among employees, systems for communication, workflow management, and virtual communities as well as groupware systems.

5.3.4 Composition:

This category comprises systems for the structuring, structured presentation, and location of knowledge.

5.4 Conclusions

It's clear that this empirical study with its cross case methodology over the four selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), had pointed the significant role of knowledge management in the marketing campaigns in these web-based CRM companies by verifying the extent of knowledge management implantations used in these selected systems.

The study showed the capacity of the four selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*) by highlighting the enhancement role of knowledge management implantations in regarding the role of knowledge management in the CRM advertising campaigns upon similirities and differences upon the cross mapping the marketing campaigns of these selected systems, then comparing the progresses upon the time line of each system development, in order to segregate similarities, differences and uniqueness between these selected systems.

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5.4.1 Similarities Evaluations

CRM web-based systems have many different functions that all can be extremely beneficial to any business. CRM web-based organizations can process a company's function to organize its contacts with its current and prospective clients. CRMs store all client information in a single database. This helps businesses avoid customer data errors. It can also improve services for customers to use customer contact information for target markets. Customer Relation Management web-based systems integrate all the primary business activities. This pulls in everyday business operations much more effective. Customer Relation Management Systems prioritize customers using their purchase history. This leaves a society to define which clients are most important and target most of their efforts towards. This is held for that Customer Relation Management web-based organizations maximize the value of a company's existing client infrastructure. This scheme enables employees in every department to understand and recognize the customer's complete history. Enabling employees to review customer account allows them to analyze customer activity and can help to sell more of their product or service to that client. Employees can manage this by viewing customers that have previously ordered large amounts of their merchandise or service. On the other hand it can aid a company realize when they have lost a client. A society can do this by calling the past history of the customer. This is helpful so that a society does not waste time on a customer that they have already missed. It makes the pouch as well serve to deflect any complaints or issues that a customer may have received in the past to compensate it for the time to come. Another aspect of Customer Relation Management web-based schemes is it can help turn prospective clients into loyal clients. All of these functions help companies maximize the value of their existing customers as well as winning new clients.

Thus, in this study the four selected organizations (Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand) meet with these functional similarities:

- Advanced User Personalization: The four systems let users configure their workplaces to fit their specific offices and data demands.

- Character-based Forms and Views: The four web-based CRM selected system displays forms and surveys based on user roles.

- Better Configuration Capabilities: The four web-based CRM selected systems have incorporated numerous small but important features into Microsoft Dynamics CRM 2011 that make it easier for commercial enterprises to configure solutions, either for themselves or third-parties.

- Customizing and Sharing as the four web-based CRM selected systems introduce what the vendor calls 'solutions,' which are ways to save customizations and share them with others.

- Interactive Process Dialogs: Dialogs help companies to gather and process information using step-by-step scripts.
- Marketplace: The four web-based CRM, online selected systems Marketplace is an online solutions catalogue that helps developers accelerate and reach out their web-based CRM Online implementations.

5.4.2 Differences Evaluations

In the evaluation approach of the differences for the Knowledge needed; the followings are the aspects of the differences:
- The knowledge management is build on employees, team, company and networks, while its a client database in the CRM and upon Client experience and creativity on the CKM.
- Targets are Sharing knowledge about customers among employees, while its Mining knowledge about the client in the CRM, and Gathering, sharing and extending knowledge of the customer in the CKM.
- Role of customer upon knowledge management is limited, while its a Passive, recipient of product captive and attached to product by loyalty schemes active in the CRM, and knowledge partner in CKM.
- Line of work objectives upon knowledge management increases efficiency and speed, while its a customer base looks after, maintaining the customers in the CRM, and a collaboration with customers, joint value creation in CKM.

5.5 Recommendations

It's clear that this empirical study within its survey tools which included the sign up in the for selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), and the use of their CRM tools in the formalization of their advertizing campaigns; had reached the following recommendations:

- The four selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), and the other web-based CRM systems should survey each other tools in order to narrow the gaps of the services introduced.

- The four selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), and the other web-based CRM systems should be harnessed to complement the existing marketing practices, extend operations and create fresh opportunities.

- The four selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), and the other web-based CRM systems should widely implement an advertising campaigns within the role of knowledge management strategy as a procedure of preparation and gathering up data associated with customers to enhance the relationship between an organization and its customers as an aimed goal through developing customer acquisition processes, customer retention processes, and customer expansion processes.

- The four selected systems (*Microsoft dynamics, Salesforce.com, Sugarcrm and Oracle on demand*), and the other web-based CRM systems should introduce knowledge management concepts, systems, and tools into the organization customer relationship management competency.

- Conducting further studies and researches in the field of Knowledge Management and its role in Customer Relationship Marketing Campaigns.

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Appendix

Here are screenshots of salesforce.com CRM system that allistrate some of the functions of the system, these screenshots are example for the selected systems in this research.
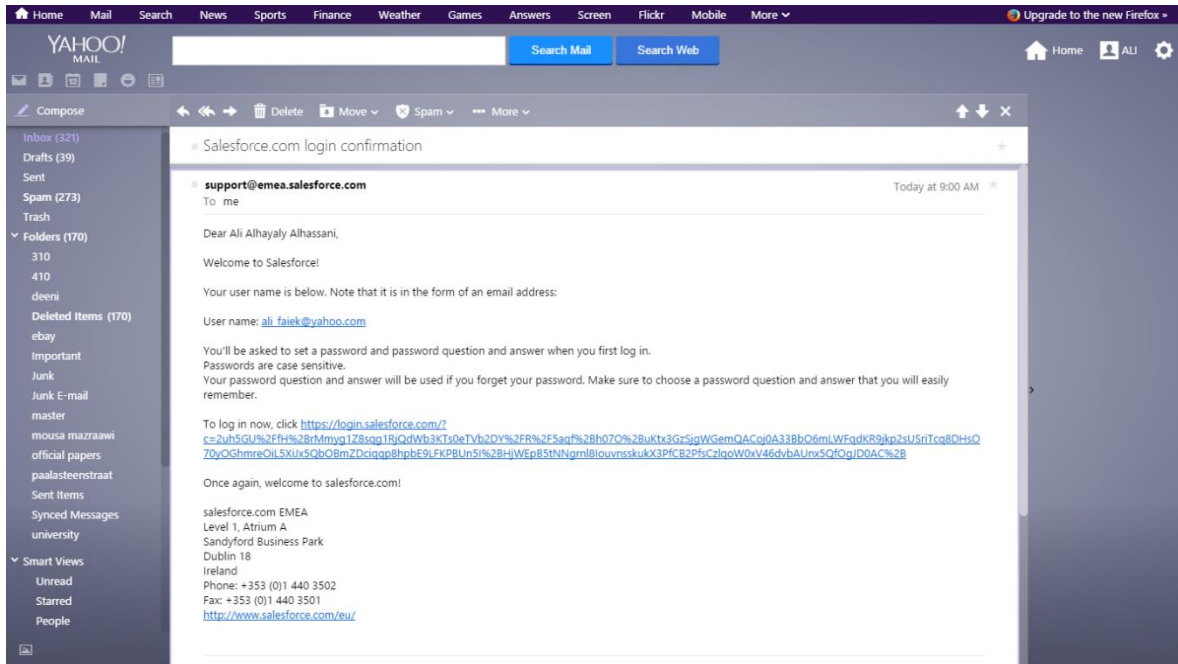
Figure (A.1) Confermation email from salesforce.com
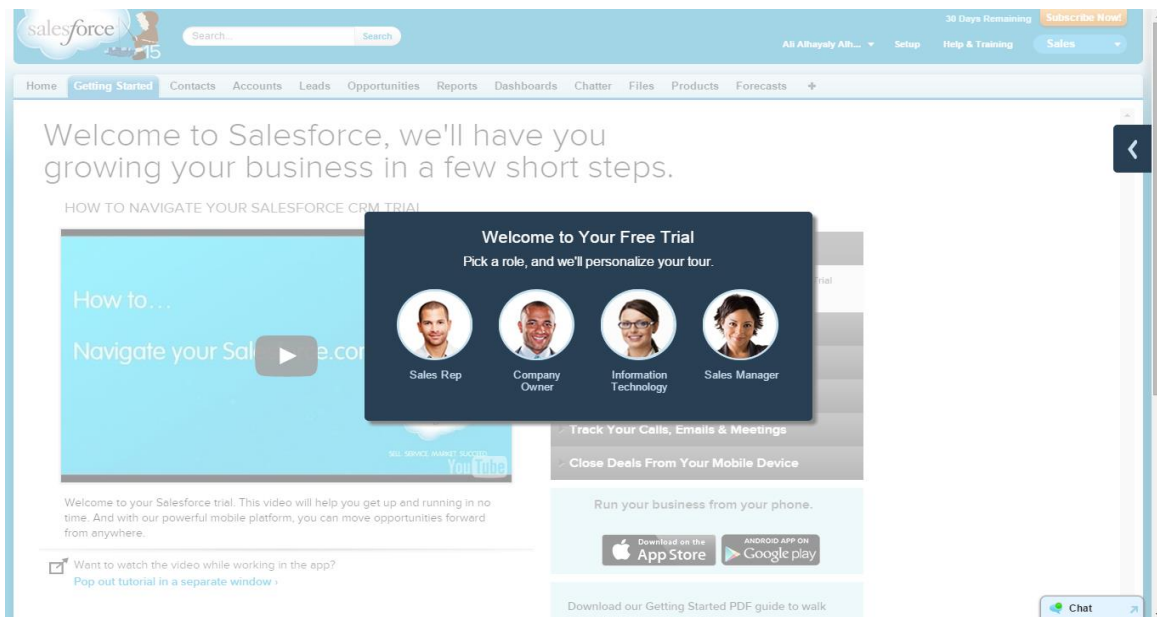
Figure (A.2) Welcome page after first siging-in
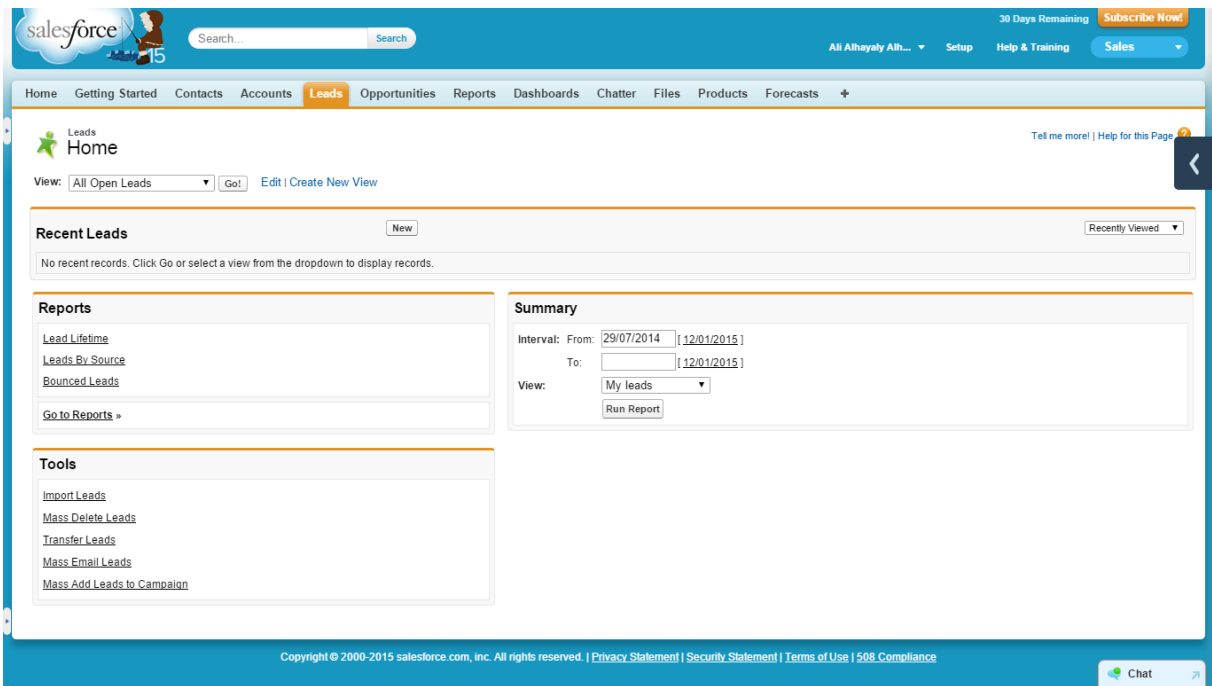
Figure (A.3) Leads tab that shows empty leads
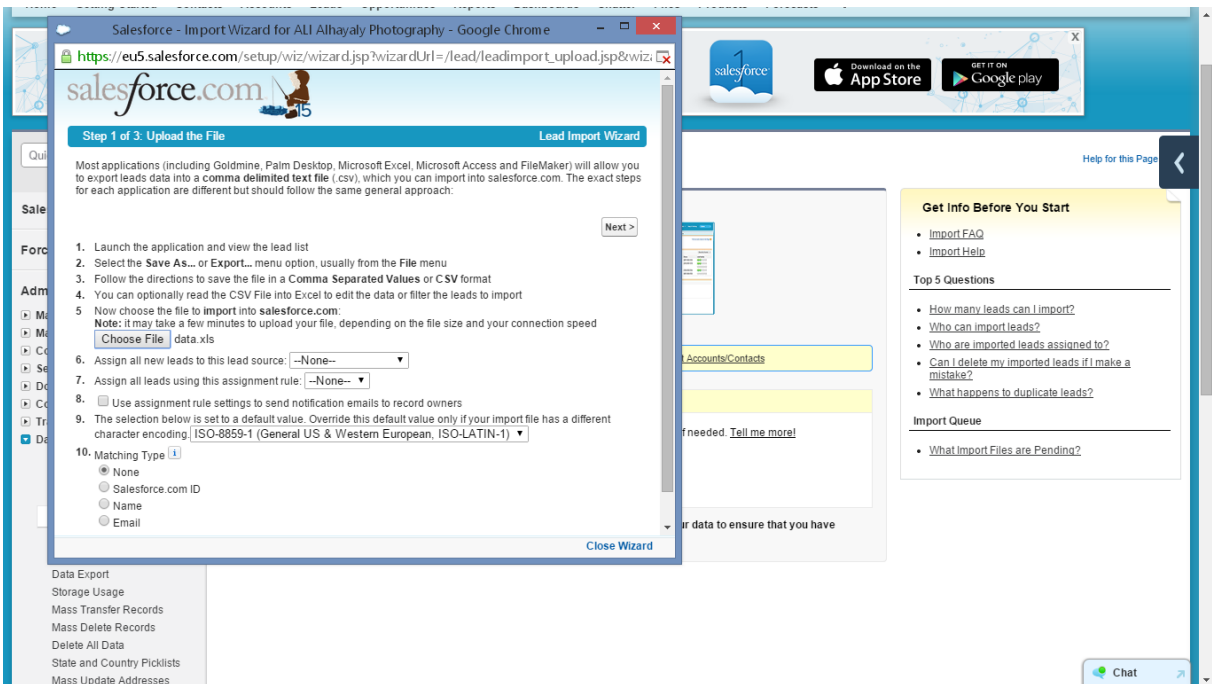
Figure (A.4) this figure shows data file import wizard
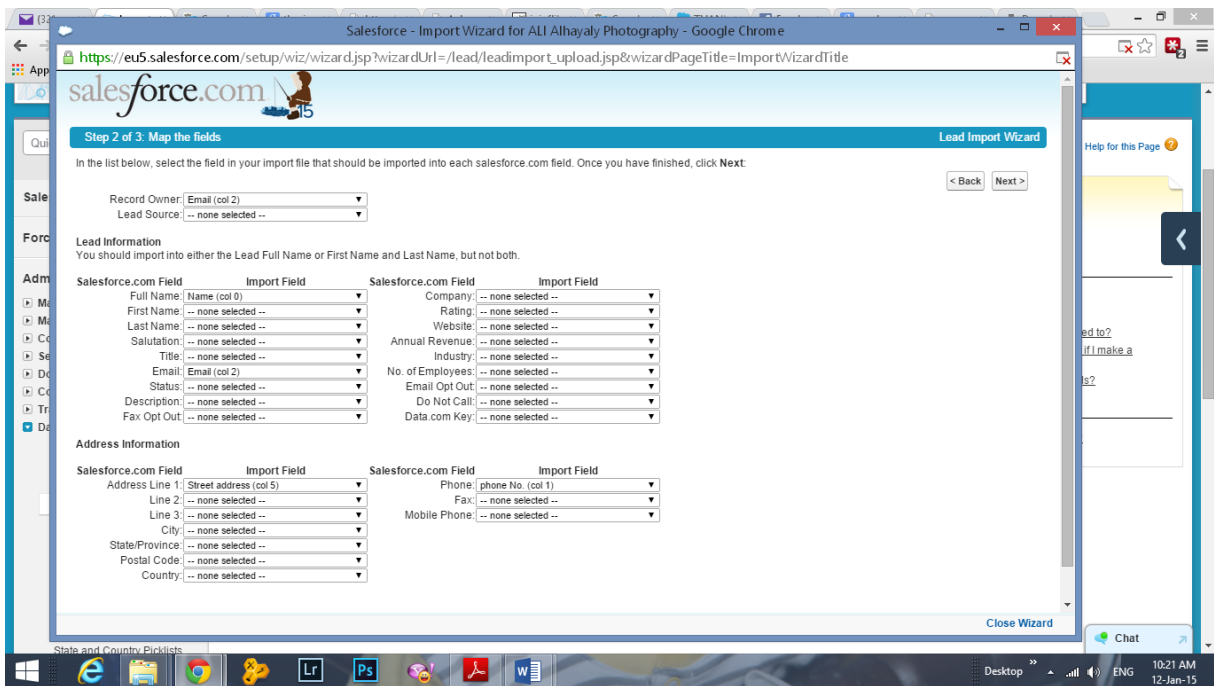
Figure (A.5) Data File import wizard
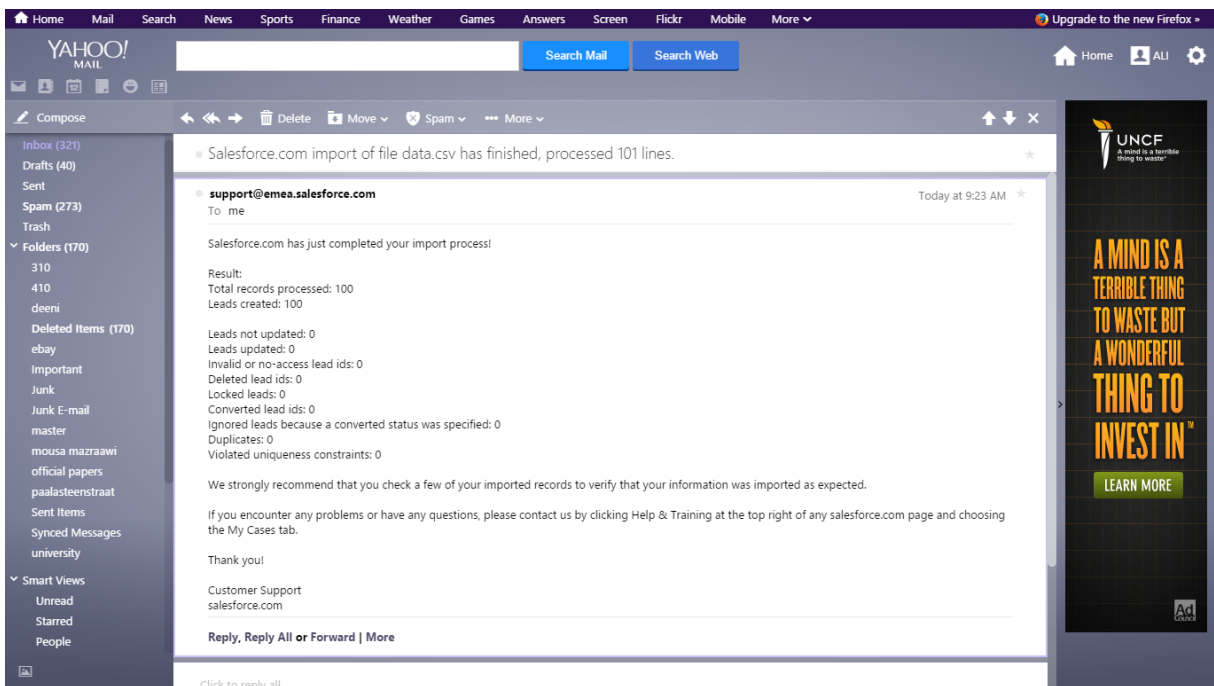
Figure (A.6): salesforce.com e-mail to confirm the Import process
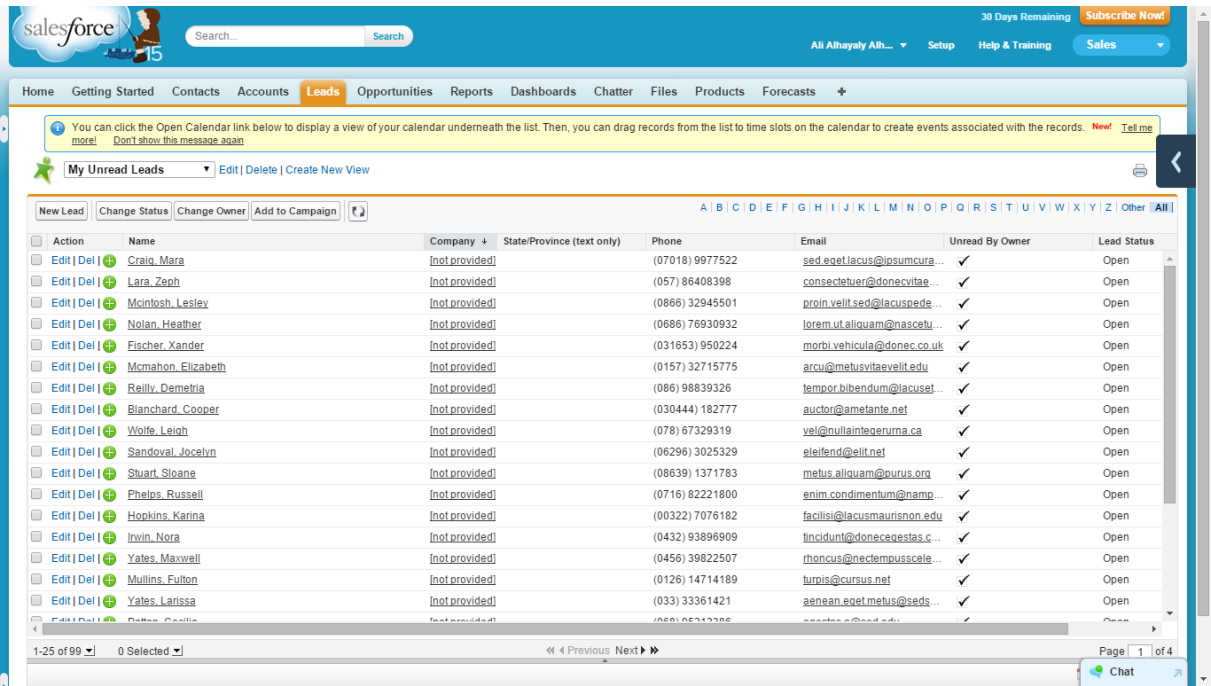
Figure (A.7): Imported Leads from data file
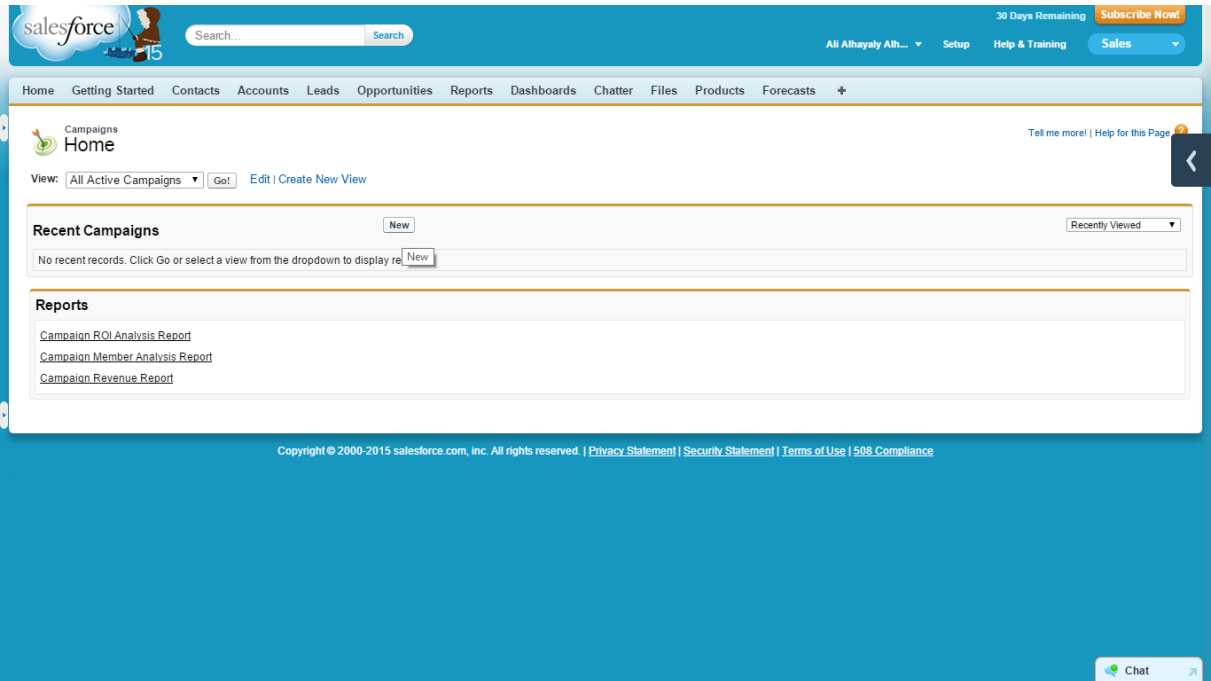
Figure (A.8): initiating new marketing campaign
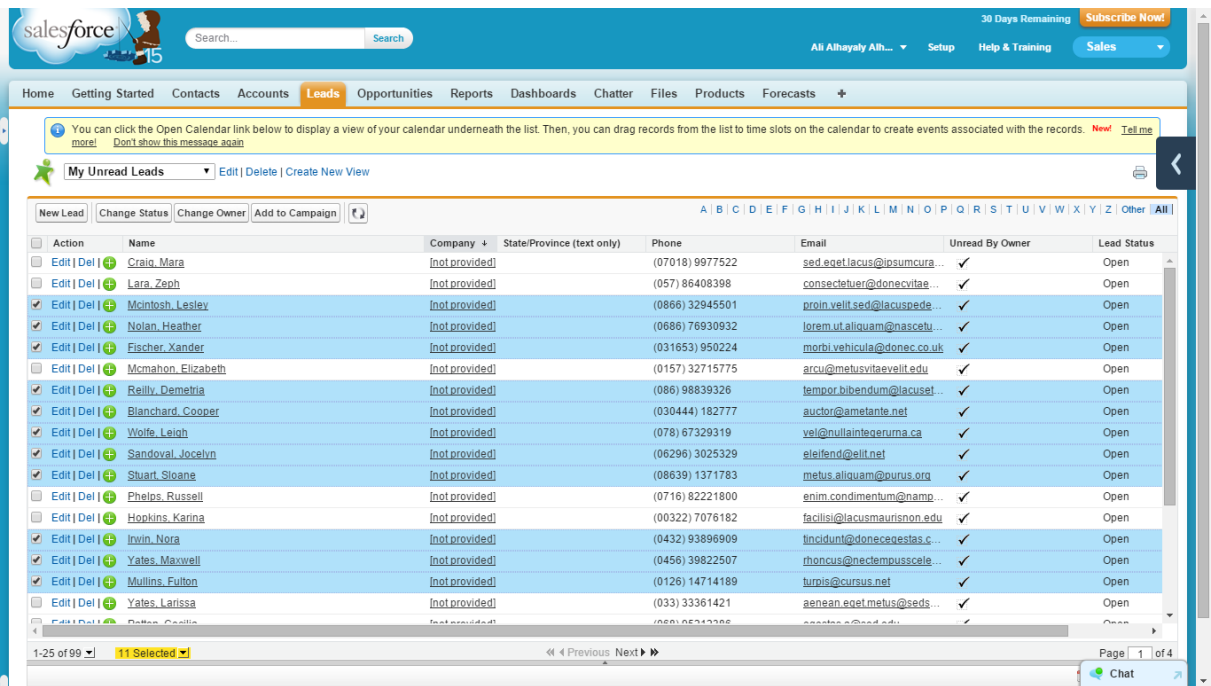
Figure (A.9) selecting leads to be added to the marketing campaign
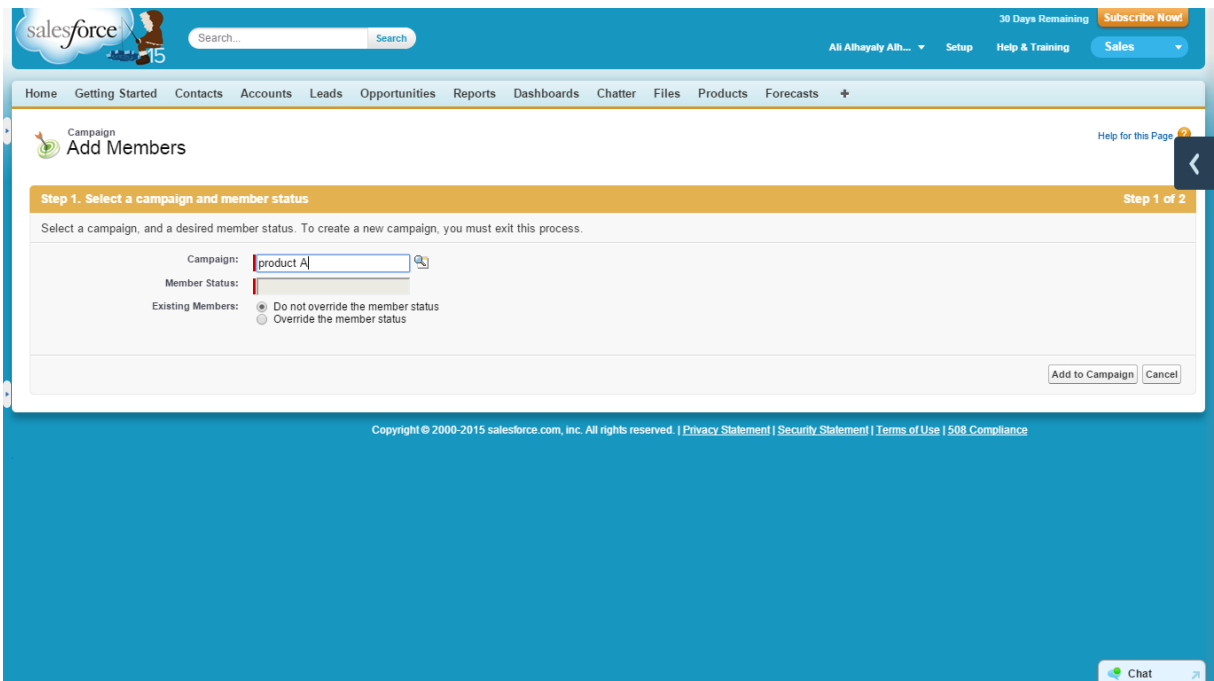
Figure (A.10) Adding the leads to the new marketing campaign (Product A)

Figure (A.11): Marketing campaign management

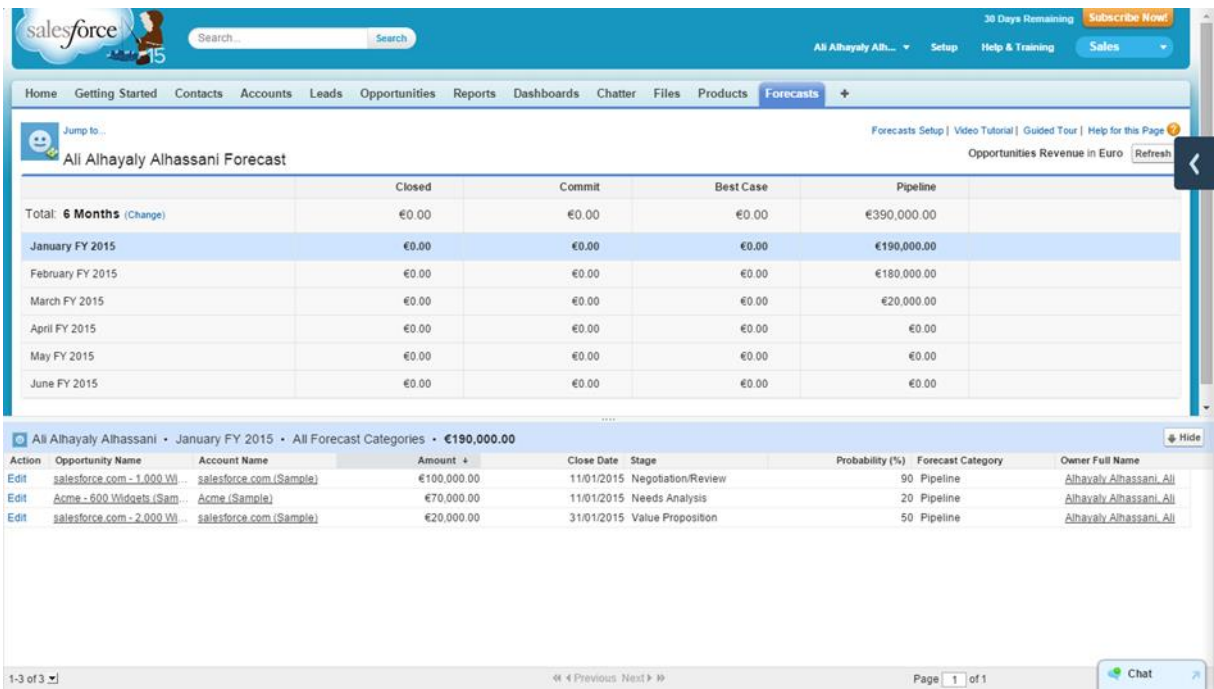Figure (A.12): marketing campaign report

Figure (A.13):Forecasts window

Figure (A.14):Dashboards window

Auteursrechtelijke overeenkomst

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Knowledge Management and its Role in Customer Relationship Marketing Campaigns Empirical study of online CRM tools

Richting: **Master of Management-Management Information Systems**
Jaar: **2015**

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