

DEVELOPMENT OF WEBSITE/APP FOR BUILDING CRM

¹Kolimi Dharma Reddy, ¹Gvs Sreyas, Kalva Nikitha, ¹K Neha Reddy, ²Dr. Vicky Nair

¹Student, Department of CSE, TKR College of Engineering & Technology, Hyderabad, India

²Professor, Department of CSE, TKR College of Engineering & Technology, Hyderabad, India

Abstract : CRM(CUSTOMER RELATIONSHIP MANAGEMENT) within the simplest kind could be a thanks to manage leads folks curious about your business and your existing customers. In the most effective manner doable, extract the best quantity of import, which, of course, suggests that cash. It refers to a company's system for analysing client interactions and following knowledge throughout the client life. Customer relationship management (CRM) aims to extend client retention and acquisition. Once you will effectively manage your leads in your customers, additional leads become happy paying customers, you determine a loyal client base that becomes your advocate, and your customers have an improved expertise together with your firm. You will need CRM software system whether or not you are a little business seeking for an area to store data and have it accessible across totally different devices or a bigger company attempting to manage consumer interactions and improve client satisfaction. Many companies try and tackle these issues with spreadsheets, emails, and different less refined ways before understanding that it's ne'er too early to begin exploitation technology, as a result of it makes things ton easier. By mercantilism your leads, contacts, and customers into your CRM system, you'll need much better knowledge organization. By programing automatic reminders and building a collection of email templates, you will be ready to improve communication and build it easier for your team to follow au fait proposals. You'll be able to quickly share data by granting access to an equivalent resources to your team via selective knowledge sharing. merely construct net to guide forms and insert them into your website's contact pages to capture all leads. The data you collect are going to be mechanically sent to your CRM and appointed to the proper individual. In fact, in line with a recent survey of CRM users, 67 % same it helped them higher follow au fait opportunities and leads, and 56 % same it improved client relationships as a result of all client interactions square measure accessible in one place. Consider a CRM as a tool you would like to manage business relationships, practices, and processes. it is not a plan of action, it is a strategy. A winning CRM permits you to achieve insight into your business's performance and alter your ways in response to trends.

IndexTerms – CRM, Customer Relationship Marketing, App, Portal, Website, Application.

I. INTRODUCTION

All business is about people, but when we deal with people, we're really talking about relationships. CUSTOMER RELATIONSHIP MANAGEMENT (CRM), all business is about people, but when we deal with people, we're really talking about relationships. It's a terrific way to think about it: you want to build long-term relationships with your customers, vendors, and everyone else who does business with your firm. We all know that a business is about people, and we all know that it's about relationships, but we also have to consider the relationships that people have with other people during the course of their dealings with these people.

Now, you probably know that the best kind of business you can get is word-of-mouth, not referral from people-to-people, but the thing is that when people have a good experience with your business, they only tell a few people, whereas when they have a bad experience with your business, they tell a lot of people, so this is yet another area where CRM comes into play.

CRM stands for customer relationship management. It is a system that allows you to manage relationships and interactions with prospects and customers. Leads and Opportunities, Accounts and Contacts let you keep track of prospects, sales, and customers. In other words, CRM can be defined as efforts taken to use technology to create, develop, and maintain a long-term relationship with customers. CRM solutions help businesses manage connections and information more effectively.

Since the early 1990s, companies have been adopting this CRM to transition from transactional to relational management. CRM is a piece of software that manages a company's marketing, sales, and merchandising operations. In discovering, acquiring, and sustaining a connection with them, information technology plays a key role. Customer service is nothing more than gathering and distributing customer information to the appropriate department. Human resource management include hiring and retaining qualified employees in critical positions within a company. Workflow automation entails scheduling a number of activities that used to operate in parallel in order to save time and money.[1][2]

The construct of client relationship management started within the early Seventies, once client satisfaction was evaluated victimization annual surveys or by front-line asking. At that point, businesses had to trust standalone mainframe systems to automatize sales, however the extent of technology allowed them to reason customers in spreadsheets and lists. One among the known precursors of the contemporary CRM is that the Farley File. Developed by Franklin Roosevelt's campaign manager, James Farley, the Farley File was a comprehensive set of records description political and private facts on individuals President of the United States and Farley met or were imagined to meet. Using it, those that President of the United States met were affected by his "recall" of facts regarding their family and what they were doing professionally and politically. In 1982, Kate and Henry M. Robert D. Kestenbaum introduced the construct of info promoting, particularly applying applied math ways to research and gather client knowledge. By 1986, Pat Sullivan and electro-acoustic transducer Muhney discharged a client analysis system known as ACT! Supported the principle of digital Rolodex, that offered a contact management service for the primary time. The best in CRM system is that nearly any structure unit will take pleasure in it — from sales and client service to recruiting, marketing, and business development. Smart CRM code offers a far better thanks to manage external relationships. Storing all client data in one place, recording service a few, characteristic sales opportunities, managing promoting campaigns these are simply a couple of capabilities that CRM options. Since CRM provides quick access to knowledge, it additionally becomes a lot of easier for users to collaborate on totally different processes and increase productivity. Another sturdy argument in favor of CRM is that it's appropriate for businesses of any size. At the foremost basic level, CRM software package consolidates client data and documents it into one CRM

info thus business users will a lot of simply access and manage it. Over time, several further functions are side to CRM systems to create them a lot of helpful. a number of these functions embody recording varied client interactions over email, phone, social media or different channels; looking on system capabilities, automating varied work flow automation processes, like tasks, calendars and alerts; and giving managers the flexibility to trace performance and productivity supported data logged at intervals the system.

Marketing automation: CRM tools with selling automation capabilities will alter repetitive tasks to boost selling efforts at completely different points within the lifecycle for lead generation. As an example, as sales prospects get the system, it would mechanically send email selling content, with the goal of turning a sales lead into a full-fledged client. Sales force automation: sales department automation tools track client interactions and alter sure business functions of the sales cycle that are necessary to follow leads, acquire new clients and build customer loyalty. Contact center automation: Designed to cut back tedious aspects of a contact center agent's job, contact center automation would possibly embody recorded audio that assists in client problem-solving and data dissemination. varied software package tools that integrate with the agent's desktop tools will handle client requests so as to chop down on the length of calls and to alter client service processes. Machine-driven contact center tools, like chatbots, will improve client user experiences. Geo location technology, or location-based services. Some CRM systems embody technology which will produce geographic selling campaigns supported customers' physical locations, typically desegregation with widespread location-based GPS (global positioning system) apps. Geo location technology also can be used as a networking or contact management tool so as to seek out sales prospects supported a location.[4]

Customer Relationship Management (CRM) is a set of people, procedures, and technology that helps a firm get to know its consumers. A method of relationship management that focuses on customer retention and relationship building. CRM is a customer-centric procedure that is carried out in information technology and enterprises. Companies that build CRM successfully will reap the benefits of client loyalty and long-term profitability. Many firms, however, struggle to deploy CRM because they don't realize that it necessitates company-wide, cross-functional, and customer-focused business process reengineering. The trend was followed by various corporations and freelance developers making an attempt to maximize lead potential, together with Tom Siebel, World Health Organization designed the primary CRM product Siebel Systems in 1993. so as to contend with these new and quickly growing complete CRM solutions the established enterprise resource designing (ERP) package corporations like Oracle, SAP, People soft and Navision started extending their sales, distribution and client service capabilities with embedded CRM modules. This enclosed embedding sales department automation or extended client service (e.g. inquiry, activity management) as CRM options in their ERP.

Customer relationship management was popularized in 1997, because of the work of Siebel, Gartner, and IBM. Between 1997 and 2000, leading CRM product were enriched with shipping and promoting capabilities. Siebel introduced the primary mobile CRM app referred to as Siebel Sales hand-held in 1999. The concept of a complete, cloud-hosted and transferable client bases was before long adopted by different leading suppliers at the time, together with PeopleSoft, Oracle, SAP and Salesforce.com. CRM systems compile knowledge from a variety of various communication channels, as well as a company's web site, telephone, email, live chat, selling materials and additional recently, social media. They permit businesses to be told additional regarding their target audiences and the way to best cater for his or her desires, so holding customers and driving sales growth. CRM is also used with past, gift or potential customers. The ideas, procedures, and rules that a company follows once human activity with its shoppers square measure brought up as client relationship management (CRM). This entire association covers direct contact with customers, like sales and service-related operations, prediction, and also the analysis of client patterns and behaviors, from the attitude of the corporate throughout this era, CRM was quickly migrating to the cloud, as a results of that it became accessible to sole entrepreneurs and little groups. This increase in accessibility generated a large wave of diminution. Around 2009, developers began considering the choices to cash in on social media's momentum and designed tools to assist corporations become accessible on all users' favorite networks. Several startups at the time benefited from this trend to supply solely social CRM solutions, together with Base and shell. Constant year,[5][6][7] Gartner organized and command the primary client Relationship Management Summit, and summarized the options systems ought to provide to be classified as CRM solutions. In 2013 and 2014, most of the popular CRM product were connected to business intelligence systems and communication computer code to boost company communication and end-users' expertise. The leading trend is to interchange standardized CRM solutions with industry-specific ones, or to form them customizable enough to fulfill the wants of each business. In Nov 2016, Forrester free a report wherever it "identified the 9 most vital CRM suites from eight distinguished vendor.

The advantages of client relationship management system extend on the far side running a business and its closely connected relationships. Ideally, a CRM system ought to facilitate your business improve the connection with existing customers, notice new customers and acquire former customers. This technique is integrated into a code that facilitates assortment, organization and management of the customer's info. A CRM system is helpful to each tiny and enormous scale businesses as long because it is enforced befittingly. This guide outlines the main blessings of client relationship management to expect upon installation of the code. This code ensures that each step of the interaction with customers goes swimmingly and expeditiously so as to extend the general profits. The code gathers client information from multiple channels. Hence, CRM stores elaborated data on overall purchase history, personal data, and even getting behavior patterns. Despite the fact that a big section of CRM in technology views CRM as a technology, it is likely to fail. Successful CRM adoption requires a well-balanced approach to technology, procedure, and people.

II LITERATURE SURVEY

Customer Relationship Management (CRM) may be a "philosophy of using a mix of shoppers and selling to ascertain relationships". Dowling argued that the best technique to amass a customer's loyalty is to create a relationship with them. client loyalty may be a issue given to the quantity of cash spent on a specific trademark. Banks, insurance companies, and different

service suppliers have long recognized the importance of CRM and its ability to assist them acquire new customers, retain existing customers, and maximize their period price.

To keep customers for an extended amount, Ibrahim et al[3] projected that shut client relationships necessitate glorious collaboration between IT and selling departments. As a result, several companies use a collection of tools, technology, and procedures to support the client association and increase sales so as to attain CRM. The value of client happiness can't be immoderate, as happy customers operate as free advertising for the business. Existing customer's area unit aforementioned to be easier to stay than finding new ones. As a result, businesses area unit developing consumer retention methods and coaching their personnel to be a lot of customer- and service-oriented.

Nowadays, the purpose of a business is not only to satisfy customers, but also to compete in the marketplace in order to achieve their objectives. Customer satisfaction is described as the degree to which a customer's requirements, wishes, and expectations are met within the product/service term, leading to repurchase and loyalty. Customer satisfaction is frequently regarded as a key factor in customer retention. The most important goal of a firm, according to Jain and Singh, is to sustain customer loyalty and to focus on a customer-centric approach in their organizational and marketing initiatives. The study's major point is that CRM has evolved into a multi-faceted and complicated phenomena influenced by a variety of elements. Due to this complication, a variety of variables have been employed to quantify CRM, which have been studied in a number of previous research. However, most businesses need to understand and examine the specific CRM measures and dimensions that have a significant impact on customer satisfaction and loyalty, which would improve the company's performance, particularly in light of increased competition and a lack of differentiation in service delivery.[8]

The purpose of this article was to evaluate CRM literature and determine its influence on customer satisfaction and loyalty. The studies are evaluated based on a set of general features and variables that have a substantial impact on CRM and its impact on customer satisfaction and loyalty. To do so, we look at the existing literature on the impact of CRM on customer happiness and loyalty, as well as its distribution among publications, to see where the area might be headed. Only empirical research studies on CRM and its impact on customer satisfaction are considered in this study. There are other studies that look at both customer satisfaction and client loyalty.[9][10] However, conceptual and other materials such as textbooks, reports, and publications by various organizations or the government, as well as master's and doctorate dissertations in this field, are omitted. The remainder of the paper is structured as follows: The second section goes into the review approach, focusing on the inclusion criteria and article selection.

III ARCHITECTURE

In hardware, software, or enterprise systems development, an architectural specification is that the set of documentation that describes the structure, behavior, and additional views of that system. A specification may be a careful description of the scale, construction, accomplishment, materials etc., of labor done or to be done on a project, ready by associate creator, engineer or designer. Populated by the intellectual, a specification document describes in words what cannot be envisioned or explained on a drawing or model. This document may be implausibly wide-ranging - covering the institution of the location, the kind of contract to be used, the performance criteria of the plus, the standard of the systems and product, that standards are applicable and the way they ought to be dead, and even the product to be used.

A CRM is unworthy while not data-it's the premise of a business's data concerning its customers, its ability to form correct sales forecasts, and its justification for driving structure modification. Consequently, poorly unbroken information will create real risks to a business, cost accounting up to thirty % of its revenue. The key to avoiding the risks of bad-quality information could be a sturdy CRM design. Because the storage house for client information, CRM computer code wants associate design that prioritizes organized information assortment and storage. Without it, a business risks pain its bottom line.

Architectural specifications don't embody info on price, product convenience, amount or drawn/visualized info therefore have to be compelled to be browse in conjunction with documents description quantities, schedules and drawings. For this reason, if a product is out of stock and a substitution is needed, the specification document ought to be adhered to once selecting another.

A CRM design outlines the strategy, structure, and processes necessary for roaring client relationship management. CRM software system plays a central role in implementing this design Strategy: Your CRM goals can verify your CRM strategy and guide your software system choice method. Structure: The structure of your CRM can range information assortment and organization. Processes: CRM processes can define the workflows for capital punishment on CRM goals. In different words, a company's client relationship management strategy are going to be the backbone for adopting CRM software system. The structure and processes are going to be its sensible implementation.

Customer relationship management may be a strategy that reinforces the continual nurturing of client relationships to extend revenue and profitableness. Despite a regular concentrate on building client relationships, each company can have its own slightly completely different war what its CRM strategy ought to seem like. What won't amendment is that the role of CRM strategy because the high-level, big-picture define of a CRM design. Spelling out the explanation behind adopting a CRM lays the groundwork for the structure and processes which will facilitate execute on goals. This includes considering the role that CRM software system can play in aiding with client relationship management. A CRM design must be sturdy enough to support the goal of client relationship management, however it shouldn't be rigid. It should be able to adapt to the ever-changing wants of consumers, employees, and even technologies which will unwittingly however inevitably throw ways, structures, and processes astray. The advantages of client relationship management system extend on the far side running a business and its closely connected relationships. Ideally, a CRM system ought to facilitate your business improve the connection with existing customers, notice new customers and acquire former customers. this technique is integrated into a code that facilitates assortment, organization and management of the customer's info. A CRM system is helpful to each tiny and enormous scale businesses as long because it is enforced befittingly. This guide outlines the main blessings of client relationship management to expect upon installation of the code.

According to Gartner (research out there to clients), one in every of the keys to booming CRM implementation is to designer for current innovation. Here ar some tips for maintaining a versatile CRM design. Work with different departments. CRM doesn't operate in a very silo. Work with representatives from different areas of the business, particularly promoting, to confirm that the

design aids the goals of the business (not simply the sales department). Leave area for integration with completely different applications. Even those applications that you may not suppose are directly associated with CRM might have information that gives insight. If we see in our Growbig app there will be two kinds of people : normal users and business user. When a new user joins us then he has an option to go for a user account or business account. Here the User account person can do is that he/she can view the businesses of his locality and he can give feedback for them as well and he can share his ideas with us as well. Business account person can do is that he/she can add their business details to show up in the application and get feedback of the users and provide offers. In this we are using the firebase to store each and every data like user data, business details, feedbacks etc.

3.1 FLOW CHART DIAGRAM

A flowchart depicts the individual steps of a process in a logical order. It is a generic tool that may be used for a wide range of purposes and can be used to describe a number of processes, including manufacturing, administrative and service processes, and project plans. In this the flow start with select section where user need to select whether he/she wanted to choose the user account or Business account then user account flow will be like first it comes a signup after user signup then goes to signup page and then home page and give feedback for different businesses and view more businesses. The Business account flow will be like first one needs to sign up and then signing and then go to home page and add businesses and receive feedback.(refer figure 1)

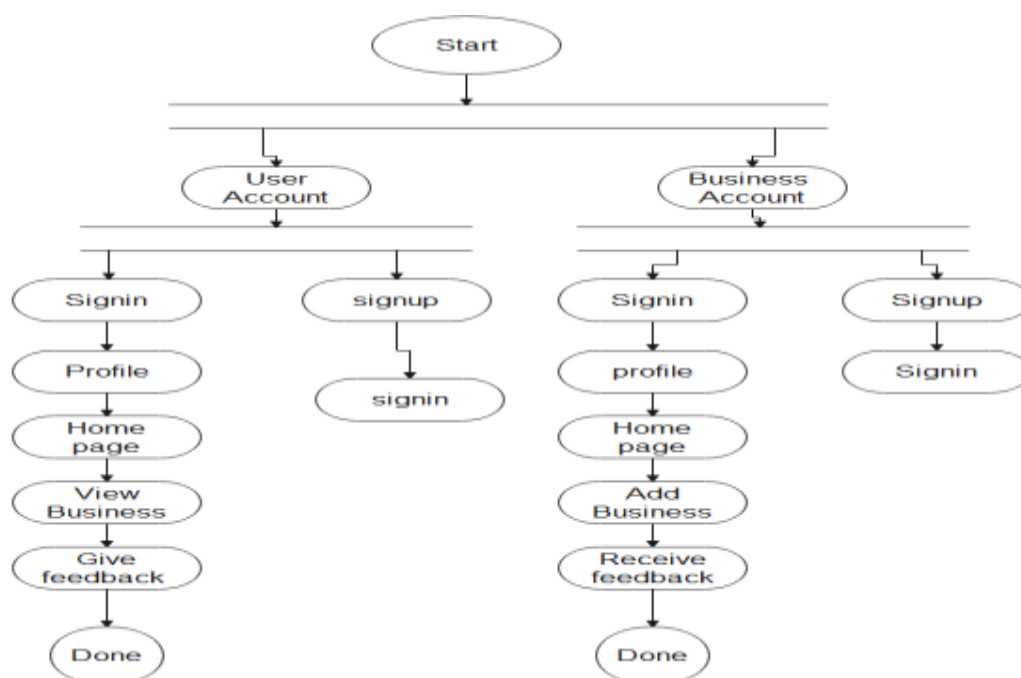


Figure 1: Flow chart of system

IV RESULTS AND DISCUSSION

Authentication is one of the main functions of the application because it is the first step for entering the application. User or business person both requires credentials in order to login to the application and access the functionalities of the application. They can login only using correct credentials like email id and password which can be created while signing up for the application. Authentication also provides account security and restricts users from accessing the account without correct credentials. This authentication functionality is integrated within the application using firebase authentication service provided by Google. Sign up allows users to create a new account and use this account to know any businesses available in their area and also provide feedback, suggestions, rating to those businesses. While creating an account they can provide details like username, full name, email id, password, mobile number in order to identify their account access them in the application whenever required.

Switching account types allows users to select which account type they want to login as and access application functionalities required accordingly. If a user selects business account then they can login as business person and manage all his business related information in the application like adding a new business, see all feedbacks, rating, suggestions from users for their businesses. If selected user account then they can login as a user and see all available businesses nearby their location and provide ratings, feedback etc. Add new business functionality provides an opportunity for businesses to add their new business they plan to establish. By adding their business, they can let people nearby that business location know about their business and get feedback from them. They can provide business details like business name, type, location and any additional information they want to share with the users while adding it.

In home page, users can see all available businesses that are going to be established in their area and then give their valuable rating, suggestions. Search business option provides them to get customized businesses and the give the rating. User reviews functionality is nothing but listing all the user reviews for a business. Business persons can see any user review for their business and take decisions based on them like making any required changes to improve. They can even contact users in order to know more about their suggestions and what they can do better. Edit information option provides users, businesses to update their information

like personal and business information whenever required. If someone forgets their credentials then they will have an option to reset their password and help them recover their account and also from losing their account.

In select account page, if a user clicks user account, then application's flow will be for user and if clicks business account, then flow will be for business account. One can create an account using signup page and can login through sign in page. Even users can recover account using forgot password option and by entering registered email id. After signing in, all the data related to number of reviews received or updated, number of businesses added or reviewed will be retrieved and displayed in the profile page including personal information like username, phone number, full name and also provides option to update the information. In profile page, there are two buttons on top of screen at both corners. One is for logging out and another is to enter home page. In user home page, all businesses available in that region, businesses reviewed and most rated businesses will be displayed. Apart from this, there are few options like suggest any idea for business, "need help" to know about user account and also "in progress" businesses available to know about businesses that are still under establishment. By clicking any business card one can review, rate and suggest that business.

In business home page, one can add a new business by clicking plus button and provide all necessary details. Know about business account by clicking "need help". It will pop up a dialog box showing some text about what this business account is about and how to use it. List of all businesses that are added in the application by the business owner are displayed. The business owner can select any business from the list of all businesses for which all user reviews can be seen. In next page all user reviews for that particular business clicked by user will be displayed. By clicking any one user review card business owner can see that particular user review. Each individual user review page contains the business title, business type to indicate the business selected and all the details related to the review like rating, suggestion of that user. Along with the review information it also contains that user's basic information like username and phone number to validate whether the user is genuine or not. Business owners can also call the user just by clicking on the phone number in that page if required and can know more about their review and also to get more feedback from them.

In user profile page, all basic personal details of the user will be retrieved from the database and then populated in the edit text fields. Users also has an option to edit their information and update in the database whenever required and that information will only be displayed from next time onwards. Along with personal details, the information related to user's business activity and their reviews like total number of businesses reviewed by the user and the total number of reviews submitted by the user to various businesses will also be retrieved and displayed. In business profile page, all basic personal details related to user maintain that particular business profile like their username, full name, phone etc. will be retrieved from database and populated in edit text fields. Even business users also have an option to edit their information and update it in database there itself just by editing the text in those fields. And information related to businesses and their reviews like total number of businesses added by the user and total number of reviews for all the businesses by various users will also be displayed.

V CONCLUSION

Our CRM application named "GrowBig" provides a connection between customers and businesses with variety of options. The interaction between customers and businesses is direct without any middle person involvement which will maintain a strong relationship between them and help businesses reach more number of people and get popularity even before establishing their business. Application contains separate flow for business accounts and user accounts and user interface is very user friendly. Businesses can provide all details regarding their business and can get variety of feed backs and also suggestions directly from customers which help them to rectify any mistakes and can also get an insight of their business. Besides providing details, our application maintains privacy of both users and businesses personal/private data. Businesses provides all information about the businesses like business title, business type, business additional and also address of the business which contains plot/flat number, street, area, city, state, country etc. through which users can get all details about business. Even business user can see complete details about reviews like total number of reviews for all businesses, total number of reviews for each business and each user's review for each individual business and also has an option to call the user and get feedback about their review and also any ideas from them. Business users can edit business details whenever required within the application. Users can get every detail about business so that they can suggest the business accurately. Users can see business title, business type and also business location.

In future we would like to create a separate space for only business people to connect all of them so that they can learn various business strategies and interact with one another and provide an opportunity for more exposure in business field and also get suggestions from business experts. Include maps in the application to locate the business and also provide extra information like pictures of business location, their sample products etc. Businesses can also provide pre-registrations and provide discounts, special offers for pre-registered customers and some other perks. Businesses can also list out their products they will sell after opening their business. They can also provide pricing details within the application. When a user opens the application's home page then his current location will be displayed on the map and also all businesses nearby that user's location and within a radius of about 2 kilo meters will also be displayed on the map. Just by clicking the desired business icon on the map user can navigate to that business page and can give rating, feedback etc. to that business which makes the searching of business easy. Even while creating a new business, business user's can open a map and just drop a locator on the map at desired location in order to fill the address details in new business form which reduces the process of typing all the business details in the new business form.

REFERENCES

- [1] Drolet, A., & Jennifer, A. 2002. Off Target Changing Cognitive-Based Attitudes, *Journal of Consumer Psychology*, 12 (1). 59-68
- [2] Dennis, L. D. 1998. Customer Loyalty Strategies *journal of consumer marketing*, vol. 15 no. 5, pp. 435-448

- [3] Siddig Balal Ibrahim, Abdelsalam Adam Hamid, Badreldien Babiker and Ali Yassin Sheikh Ali. 2015. Customer Relationship Management Quality and Customer Loyalty: Evidence from Sudanese Bank Customers, *Academic Research International* Vol. 6(1)
- [4] Chumpitaz, R. and Paparoidamis, N. G. 2007, Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty. *European Journal of Marketing*, 41(8). 836–867
- [5] Day, G.S. 2000. Managing marketing relationships. *Journal of the Academy of Marketing Science* 28(1) pp.24–31
- [6] Duygu Kocoglum M and Sevcan Kirmaci. 2012. Customer Relationship Management And Customer Loyalty; A Survey In The Sector Of Banking *International Journal of Business and Social Science* Vol. 3 No. 3 pp 282-291
- [7] Kracklauer, A. H. 2004. Collaborative Customer Relationship Management (CCRM). "Collaborative Customer Relationship Management – Taking CRM to the Next Level", A. H. Kracklauer, D. Q. Mills, D. Seifert, Springer, Wiesbaden.
- [8] Liz lee-Kellely, David Gelbirt and Robbin Mannicom 2003. How e-CRM can enhance customer loyalty. *Marketing intelligence and planning*, 21(4). Pp.239-248
- [9] Keith, A. 2008. Customer relationship management: Finding value drivers *Industrial Marketing Management* 37 - 120–130.
- [10] Morgan, R. and Hunt, S. 1994. The commitment-trust theory of relationship marketing. *The Journal of Marketing*, 58(3). 20-38
- Ndubisi, N. O. 2003. Service quality: understanding customer perception and reaction. and its impact on business', *International Journal of Business*. 5(2). pp. 207-219.
- [11] Ndubisi, N. O. and Chan. K.W. 2005. Factorial and discriminant analyses of the underpinnings of relationship marketing and customer satisfaction", *International Journal of Bank Marketing*, 23(3). pp. 542-57.
- [12] Nelson, O. N. 2007. Relationship quality antecedents: the Malaysian retail banking perspective, *International Journal of Quality & Reliability Management*, 24(8). pp. 829-845

