Model for Implementing Customer Relationship Management System

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Abstract. Introduction of Customer Relationship Management (CRM) business strategy in an organization represents an implementation project that involves significant changes management (processes, technology, people), resource management (time, effort, money) and active high management participation. Consequently, CRM vendors are facing a number of serious challenges while selling their services (CRM implementations to customers) and, at the same time, trying to stay profitable.

This paper suggests the model enabling CRM vendors to cope with most of these challenges. The model ensures transparent, repeatable and consistent approach to the (pre)sales activities and (potential) entrance into a CRM implementation project. At the same time, the model helps to determine whether CRM should be implemented in an organization and (if so) what the required functionalities are, which CRM software would be suitable, what Return Of Investment (ROI) the project would have, how to generate project proposal/contract and how to establish efficient project planning.

The model was built upon the gathered information, based on a larger number of CRM (pre)sales activities, customer experience analysis, best practices of real life CRM implementation projects, CRM software research, Microsoft Dynamics Sure Step methodology, Microsoft Dynamics CRM Discussion Tool and theoretical settings analysis.

The model has been evaluated on a company case study. The model implementation result analysis has proven that model does attain the set objectives, with measured reduction of the internal resources required and the total time consumption, and reported increasing positive customer experience.

Keywords. Customer Relationship Management, CRM, model, implementation solution, case study, knowledge base, customer experience, integration, Microsoft Dynamics CRM, Microsoft Dynamics Sure Step, Return Of Investment, ROI

1 Introduction

The main goals of every company are to stay present, recognized and respected on the market, to grow as a company and to increase profit. These goals can be reached by offering services and goods so satisfying, suitable and/or vital to the customers that they keep on investing their time and money in the products of that company. Maintaining satisfied customers creates opportunities for up-sell and cross-sell. The described concept is a foundation of the business strategy called CRM and it offers companies to gain the competitive advantage above competition.

There are various solutions to achieve CRM business strategy. Companies specialised in CRM related analysis, consulting and implementations are called CRM vendors. Their task is to recognize and handle a number of challenges that might occur (or have already occurred) during the CRM implementation/usage, in spite of diversity and business distribution covered by CRM. What makes their everyday jobs even more difficult is the variety of CRM software tools present at the market.

Generally, in order to make all project stakeholders content, during (pre)sales activities and project initiation, it is essential to set project scope, time line and cost boundaries. With CRM implementation/upgrade projects these main project start-ups are additionally complicated due to CRM process impact on almost every business process/area/department/resource in the company. CRM vendors are responsible for helping their customers define CRM projects in manners that assure the project success. Unfortunately, in practice, there is often a lack of resources (time, budget ...) for quality project analysis before signing the actual project contract. Therefore a lot of CRM initiatives fail.

This paper looks into CRM vendors and their efforts to finish defined activities in given settings, and (at the same time) stay competitive and profitable. The solution offered here is a general model that would enable regulation of activities/data that CRM vendors handle while considering the CRM project,
during (pre)sales activities, signing contracts and project kick-offs. Based upon the knowledge base (technical specifications and best practices), the model tries to:

- Assure rapid, professional and transparent answers to the most common questions that potential CRM customers might have regarding CRM implementation/upgrade (i.e. ‘Do we need CRM and why?’, ‘What scope of CRM project would be appropriate for our company and why?’, ‘What to expect from CRM and how to recognize/value that?’, ‘Which CRM software to choose?’, ‘What would be our ROI?’)

- Define goals and scope of CRM implementation/upgrade project
- Reduce redundancy, (human) error rate and misunderstandings
- Improve decision making processes
- Ease CRM implementation/upgrade project planning
- Suggest the most appropriate software tool

The next chapter presents basics about CRM business strategy and current trends. The third chapter describes CRM vendors, their organization and issues they cope with. The fourth chapter analyses two key factors that are recognized to influence CRM implementation/upgrade success. Finally, in the fifth chapter, there is an overview of the model for structured approach to the (pre)sales activities and (potential) entrance into a CRM implementation project, from the concept to the implementation case study, with implementation result analysis. The paper finishes with a conclusion.

2 About Customer Relationship Management

CRM is an important business strategy that differentiates an organization from its competition [1]. Organizations that pay attention to customers and take actions to improve the customer experience gain competitive advantage.

Historically, organizations built structure around the products and services they create and sell. The focus was on:
- Achieving economies of scale through mass production
- Product innovation
- Mass marketing and product branding

These are important considerations, but they do not take the customer experience into account. Customers are not loyal to businesses that focus in these areas alone.

The goal of CRM is to provide a complete view of the customer experience with the organization. When an organization understands all the interactions that form the customer experience, it gains important information about its customers’ needs. The organization can then use the information and be more effective at meeting customers’ current and future needs. It can also identify customers whose needs cannot be met profitably.

When an organization can anticipate and respond to the needs of customers, and aligns its products and services accordingly, it can begin to build customer value. Customer value means that the organization makes products and services so satisfying, convenient, or valuable to customers that they want to devote their time and money to the organization than to any competitor [1].

When customer value is achieved, it is possible for an organization to successfully offer new products and services to existing customers. This opportunity to ‘up-sell’ and ‘cross-sell’ existing customers is how CRM allows an organization to compete with competitors that may have a larger market share.

Some studies have shown that ‘it is 6 time more expensive to gain a new customer than to retain an existing one’ [2]. Statistics like these have pushed the industry want to become more knowledgeable and intimate with customers. Therefore, a new marketing methodology was defined – a CRM marketing (Fig. 1, [2]).

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<th>Identify</th>
<th>Differentiate</th>
<th>Customize</th>
<th>Interact</th>
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<td>customer, individually and addressable</td>
<td>by value then needs</td>
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Figure 1. CRM marketing [2]

CRM marketing is based on interactions one-on-one, and has the following key goals:
- Increasing the loyalty of profitable customer
- Improving cost efficiency and effectiveness of marketing campaigns
- Cross selling opportunities
- Reducing customer attrition/churn
- Tailoring prices, offers, or product components to specific types of customers
- Provision of single point of contact with a customer

In line with CRM marketing, the overall CRM processes and functionalities can be defined as [2]:
- Step One (Basic CRM): Identify and Differentiate
  - Customer-centric processes of acquiring, identifying, nurturing, securing, and retaining clients
  - Extraction from the core transaction data, account data, and external data, and the various steps required to build the customer information system
- Five key aspects of studying the customer relationship with all surrounding the customer environment: target marketing and campaign...
management, behaviour modelling, profiling and segmentation, customer risk analysis, and customer valuation

- Various technologies utilized for implementation of CRM functionality such as Data Mining, Analytic processing, Query & Reporting, Statistics, and Information Access, which all surround the core content-base: Data warehouse.

- Step Two: Customize and Interact
  - Integration of customer profile, contact history, communication channels etc., and application of the stored Business Rules, thereby creating a set of one or more Recommended Actions for the customers.

The social media bang (i.e. Facebook, Twitter, LinkedIn), led to situation where every interaction between organization and customer is usually followed by numbers of interactions between customers themselves. Placing an organization in the middle of those more-to-more interactions and creating customers networks represent a new generation of CRM. That new generation of creating, managing and involving within customer relations is called social CRM [3]. Social CRM is a strategy and an access to applicable applications, using the power of Internet customer communities, wider specific networks and traditional CRM systems. Social CRM gives an extended value to classic CRM efforts, emphasising the value of CRM users and their mutual interactions.

3 CRM Vendors

Vendor is any company (could be a government agency) that tries to do business with customers or provide them with services [4]. CRM is a vendor reaction to growing competition and less reliable customers. CRM is also an attitude according to which vendors see and hear their customers, getting to know them and understanding their needs, regardless of the communication channel.

CRM business solution implementation requires advanced knowledge of CRM business strategy, functional and non-functional CRM software characteristics and understanding the real needs, possibilities and limitations of companies considering/having CRM. CRM vendors are a professional team of experts with knowledge, experience and skills described.

In everyday life, the most popular vendors are usually at the edge of profitability. Customers want more and more functionalities for less and less money, they want someone who is always there for them, require rapid and simple solution doing exactly what they imagined, and expect a friendly and pleasant treatment. In order to comply with all these demands, CRM professional working for CRM vendor should at least be [5]:

- Highly motivated (as a person) for project success
- Having enough time, support and budget required for customer specific/oriented approach
- Having progressive social and negotiation skills

Practice show that no professional is able to fulfil all these requests, every time and on every implementation/upgrade/support project. What really happens is one or more of these issues [5]:

- Project estimations are made without project manager and/or CRM expert
- Project plan does not cover all project tasks or is not realistic
- Resources get withdrawn or reduced during the project
- There is a communication problem with the customer or within project team
- Business processes are not enough aligned/communicated/transparent
- Not enough time/budget for project documentation
- Customer keeps having additional requests, with cost/scope/time reflections, but with fixed cost/scope/time

These issues could be found in any project and are referred to as project issues. A part from them, CRM vendors have additional business challenges due to lack of knowledge and understanding of CRM business strategy. These challenges are called CRM project issues, and some of the examples are [5]:

- Turning leads into opportunities and opportunities into contracts - still, for most, CRM is ‘nice to have’ and not ‘must have’
- Efficiency and project cost - easy to exceed (i.e. (pre)sales less exact/predictable, more customer education and guidance required, CRM involves most business processes, requires high management involvement)
- Customer experience – no true understanding means no reasonable and clear project goals, and therefore no measurable project results

These project specific issues could be examined through the internal organization of the vendor company. Typically, recognizing and coping with issues and problems on some CRM project takes
place in the actual CRM vendor company departments, in line with project phases (Fig. 2, [5]).

The CRM vendor company internal organization often bounds resource availability [6]. Structures are in range from functional to project, and between them is a choice of matric structures, with or without Project Management Office (PMO).

4 Additional CRM Implementation Success Factors

Introduction of CRM business strategy in some company is a project that CRM vendors must manage in a way that all stakeholders get satisfied. In practice, some of the main success factors are usage of the systematic project methodology and reaching as near as possible to the ROI defined before project start.

A properly chosen and strictly followed methodology of managing a project is vital for project to be accomplished on time, under budget and as per specification [7]. Project management (PM) methodology should be followed to avoid failure and reduce risks, and considered as the core competency of the project team. A suitable PM methodology is also the direct way to guide the project team through developing and implementing activities and tasks in well-defined phases of the project implementation life-cycle. The model described in this paper was created using best practices from Microsoft Dynamics Sure Step [8] methodology and everyday experience in working with customers (meetings, presentations, surveys, offers, contracts etc.).

Most simply, the ROI of a project is how much income is generated after subtracting the costs of the project [9]. Of course, in the real-world ROI is much harder to calculate. This is because the time that a project generates income can stretch over many years. For example, an ecommerce site might take 6 months to build, but will generate sales for years afterwards. Also, sometimes projects have only indirect impacts on income. An example of this is a new customer service system. Everyone knows that customer service is important so building a system to improve on the level of service can be a good idea. But since the customer service team doesn't actually sell anything, how do you measure the bottom-line impact of a project? The model introduced by this paper, and the case study used to evaluate the model, uses Microsoft Dynamics CRM Business Value Discussion Tool [10] localised version called Microsoft Dynamics CRM Discussion Tool (ROI DT) [11].

5 Model for Implementing CRM System

CRM implementation/upgrade projects are complex and impact all business processes in a company. Therefore, CRM vendors must know how to recognize and resolve various questions regarding CRM. Moreover, according to everyday experience, successful ending of a CRM implementation/upgrade project, with all stakeholders satisfied, is directly dependable on CRM vendors and how much skills, knowledge and experience have they invested in the: project diagnostics, (pre)sales activities and project initialisation (see chapter 6.3.1 Implementation Result Analysis).

Consequently, this chapter introduces a general model for implementing CRM systems. The model is intended for CRM vendors in order to help them be more efficient in activities involving data gathering and processing during Diagnostic project phase. A Conceptual Model presents model’s basic characteristics and components, and provides foundation for building a Model Implementation Solution, regardless of the technology and software tools. The suggested Conceptual Model, using described (simple) Implementation Solution, is evaluated on a Case Study.

6.1 Conceptual Model

The main reasons for developing this model were:
- Redundancy reduction (some data get gathered more than once, some activities get repeated etc.)
- Decrease of errors, revisions and misunderstandings (budget and timeline impact)
- Improvement and acceleration of decision-making process (introduction of arguments and facts)
- Building universal template for choosing and managing CRM projects (more professional approach)

Therefore, the model provides clear and argumentative answers to basic questions that emerge while considering CRM strategy introduction:
- Do I need CRM?
- Am I ready for CRM implementation?
- What is the appropriate CRM project scope for me?
- What are my expectations from a CRM project and how will I recognize/value them?
- Which CRM software to choose and why?
- What is my CRM project ROI?

The main elements that make the model are knowledge base and gathered data. Together they contribute to decision-making and data list creation, based upon which is possible to update knowledge base and route data gathering (Fig. 3).

Knowledge Base is a set of knowledge and skills about some area of science and is a key element of expert decision-making systems [12]. It is an organized repository of knowledge (in a computer system or an organization) consisting of concepts, data, objectives, requirements, rules, and specifications [13]. Its form depends on whether it supports an (1) artificial intelligence or expert system
based retrieval, or (2) human based retrieval. In the first case, it takes the form of data, design constructs, couplings, and linkages incorporated in software. In the second case, it takes the form of physical documents and textual information.

Furthermore, knowledge base is a special kind of database for knowledge management [14]. Knowledge management comprises a range of strategies and practices used in an organization to identify, create, represent, distribute, and enable adoption of insights and experiences [15]. Such insights and experiences comprise knowledge, either embodied in individuals or embedded in organizations as processes or practices. The model uses knowledge base to manage knowledge about:

- CRM characteristics/specifics CRM
- Data about CRM software tools functionalities
- Set of data required for gathering in each activity
- Data connection/transfer between activities

Fig. 4 shows data that make initial model knowledge base, before gathering data about individual customer. A side from data, knowledge base also contains information about their connections, hierarchy/organization and impact on the implementation project.

The knowledge in the knowledge base is used and updated in every step of model usage (data gathering, making decisions and building data lists). Fig. 5 displays these model activities, in manner they occur in the model. Every activity can be repeated and they all use data from knowledge base. On the other hand, the model activities results update knowledge base.

The decision making algorithms, integrated in the model, provide clear and automated answers to the following questions:

- Is it necessary to introduce CRM business strategy in a company and enter the CRM implementation project?
- Which CRM software tool, based upon company specifics, to choose for introduction of CRM business strategy?

The ability to provide customers with those answers, using facts and on-the-spot repeatable automation, presents a competitive advantage to a CRM vendor. Therefore, the model conceptual architecture and everyday administration must assure the proper functioning of those two decision making algorithms.

It is predicted that model (knowledge base, but also activities, interface and algorithms) must be further developed and upgraded through best practices and new software versions.

6.2 Model Implementation Case Study

Building an implementation solution of the presented conceptual model is technology and approach independent. As example, this paper introduces a solution made in Microsoft Office Excel 2007 as implementation software.

Model is implemented on the case study of the regional IT consulting and programming private held company, that this paper calls KreNi. The company is currently a leading Microsoft Dynamics NAV ERP (Enterprise Resource Planning) implementer and has a wide network of ERP customers in the region. Its vision is to become a business ‘One Stop Shop’ in five years’ time. The strategy is to become a CRM vendor as well and that way answer all business needs.
one customer might have. Their primary CRM targets are their current ERP customers.

The main departments in KreNi are:
- ERP, BI and CRM departments - implementation and customization of global solutions from their partners (i.e. Microsoft, Qlicktech etc.)
- R&D department - custom customer related solutions definition and development

As a result, KreNi as a CRM vendor offers Microsoft Dynamics CRM, Microsoft Dynamics NAV CRM and AdCRM (custom made CRM software).

KreNi has to face all CRM vendor issues mentioned earlier. Additionally, KreNi had to cope with challenge of changing internal processes and priorities (resources, activities etc.). For the first time in many years, KreNi was trying to do something completely new, with no guarantee if it is going to pay off or not. For all those reasons, KreNi needed a new planned, repeatable and documented approach to CRM implementations.

KreNi decided to use the introduced Excel model implementation solution. First they agreed on some basic tasks regarding (pre)sales process (finding leads, opportunity qualification etc.).

Second, they put the Excel model on their Microsoft SharePoint collaboration tool. That document was named a Template. They all could reach it, and only a dedicated administrator could make updates. For every CRM project, they would take the Template, make a local instance and later upload the final project document. The returned documents/information was used for model improvements.

6.3.1 Model Implementation Analysis

The Excel Model Implementation Solution requires a lot of manual work. That leads to the main disadvantages of the solution:
- The knowledge base data entrance, settings and maintenance
- Setting up the decision making algorithms (based on [16])

On the other hand, data update/propagation between Excel sheets and check-up/display functions in general were strengths of this implementation solution.

There was a need for additional education of KreNi project teams in order to help them understand better the questions regarding CRM project ROI. These questions were problematic to most customers, too.

But most problems in model usage were in the general concept of systematization and documentation during every step. KreNi was mostly established for ERP projects, so a lot of things were done automatically, reusing old project documentation etc. On the other hand, the CRM was just starting and trying to achieve maximum results (as quick as possible) and therefore model upgrades and administration were huge.

Surprisingly, implementation result analysis show that systematization and documentation introduced through the model were actually the biggest improvement. The savings they brought, compared to the CRM initiatives done without the model usage, made all the efforts worthwhile.

During analysis period, KreNi targeted their current eight ERP customers, their other four ERP customers requested a CRM presentation and they approached two new (potential) customers. Out of them, at the end of the analysis period, there were two implementation contracts signed, for three customers the model decision making algorithm recognized that...
customers were currently not ready for a new CRM project, while others are still in the sales pipeline.

During the first model usage the spent internal resources (amount of money; sum of total time spent per every team member involved and direct costs, i.e. materials, presentations etc.) were more than seven times higher than in the last analysed case (Fig. 6).

Figure 6. Implementation Result Analysis - internal resources per analysed case

A bit less dramatic was difference between total times spent per analysed case, where savings were around three times (Fig. 7). This shows that not only did model save time, but it also saved the best team members/experts, enabling them to work on other (profitable) projects.

Figure 7. Implementation Result Analysis - total time spent per analysed case

At first model usage, the increase of internal resources consumption was more than three times compared to classic lead/opportunity elaboration. On the other side, the main advantage that appeared with model usage was that customers learned the subject and they accepted the proposal at once and signed the CRM implementation project contract. That was the first CRM independent implementation arranged and made by KreNi. The project was a success and the customer signed the postproduction support contract.

Only from that moment on there were some savings, although the model is still being constantly upgraded.

Figure 8. Implementation Result Analysis - spent (red) vs. planned (blue) internal resources

A part form internal resource and time savings, KreNi project team members evaluated the model in terms how does it (in their opinion/experience) meet the goals set before model introduction. According to them, the biggest advantage that the model brought them is redundancy of misunderstandings with customers that, till then, occurred very often. Next are having project documentation (with all up-to-date project data in one place, transparent to the customer as well), having one Template to choose and manage CRM projects and redundancy of internal confusions.

Finally, the model introduced a new approach in decision-making that customers loved. The survey given to customers showed how the use of model by KreNi team was a good method. The customers really liked the possibility to be involved and understand what they sign, before entering the project.

Based on gathered information about advantages and disadvantages of model introduction, the case study proved the model to be a success. The model brought KreNi savings and profit increase, and was proven to be a good start to develop some more advanced implementation solution.

8 Conclusions

The concept of a CRM business strategy is just entering the most companies in our region, although the telecom industry uses CRM as a core business for years. Diversity of appliance, (seeming) market immaturity for advanced customer experience care, and (still) present financial crisis, make CRM for most people ‘nice to have’ instead of ‘must have’. Partially, CRM vendors take blame for such environment, since they fail to bring CRM closer to their customers and mostly offer expensive and unsuitable solutions.

This paper suggests solution that enables CRM vendors an easier approach to their customers and explains the CRM idea, without spending inadmissible amounts of internal resources/efforts in the process. The model described and evaluated on a
presented case study is intended to increase CRM project cost effectiveness to CRM vendors, making projects faster, with less mistakes and more aligned with each customer needs/expectations. The idea is to use model in order to allow CRM vendors devote more time to their customer and together with customer, in a professional manner, decide is CRM needed, which CRM software suits best, what is the expected ROI and which functionalities are in project scope. The key elements of those efforts are:

- Transparency - system of questions and answers provide clear documentation of customer requirements, CRM software tools etc. The documentation is easy to reach, supports and accelerates decision-making process and enables overview of the (potential) project scope and cost
- Repeatability - thanks to decision making algorithms and centralized knowledge base placed in the heart of the model, every model activity can be repeated, enabling the view of the (new) results (i.e. if not functionality X, which software is the cheapest?)
- Consistency- knowledge base assures that in every model activity, for every customer, there are gathered all necessary data and that there are no data neglected in the following activities

Case Study Implementation Result Analysis has shown some disadvantages of the Model Implementation Solution and Case Study management, but the model, as a concept, was proven as successful. Therefore, the future work will be focused on additional Conceptual Model optimisation and more fitting Implementation Solution development (i.e. graphical interface, easier administration, algorithm improvements etc.). After those remarks, the described model might become important in CRM popularization.

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