

APPLICATION OF CUSTOMER RELATIONSHIP MANAGEMENT (CRM) IN AGRICULTURE

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Abstract: Business decisions supported by strategy of customer relationship management CRM are interesting for: retail networks, telecom operators, banks, insurance companies, travel agencies, but also for agricultural organizations. This paper highlights the importance of IT development of customer relationship management strategy. The development of information technology in agricultural organizations and easier and cheaper access to it, enables the development of electronic relationships with customers (e-CRM) which simplifies and automates the dialogue with customers and provides an answer to their requests in real time, which leads to increase of customer loyalty and satisfaction. This business strategy helps agricultural organizations to adapt their products and services for each client.

Keywords: Agriculture, agribusiness, CRM, CRM strategies, eCRM

Introduction

Management Today, under the impact of crisis, agricultural businesses are facing the question of how to increase sales. Competitive environment in which agricultural organizations are operating, forces them to lower the prices of their products or add new services to retain their customers. Sometimes that's not enough to keep the customer because customers become more demanding and harder to meet. This raises the question of what customers really need to conduct their businesses and how can they be helped, and the question who are the best (most loyal) customers. Finally, communication towards customers is expensive and organizations are facing the question of how to effectively spend the money intended for communication with customers. Customer relationship management represents marketing transactions in which the vital components are product, price, promotion and place. Since agricultural organizations have a large number of customers, effectively managing relations with them is the key of maintaining the business. CRM connects IT and marketing strategy to create a long-term relationship with valuable customers and to improve customer service, which leads to increased profitability of company. By combining the right software and analytical tools, CRM [1] helps organization to integrate customer data from different sources, to analyze it and gain a comprehensive view on customer relationship. Agricultural organization that have experience in implementing CRM systems know that this is not just technology and software solution but CRM can be referred to as an integral part of the overall customer relationship strategy. Systematic use of CRM applications is well established for the purpose of providing benefits for organizations who want to automate their sales, marketing

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and customer service functions. It's estimated that the cost of acquiring new customer is about five times the cost of maintaining the existing customer [2]. That stands for a reason to pay close attention on needs of today's customers. CRM is a business strategy for agricultural organizations oriented on customers, that is used across the company. Companies that choose organized CRM should provide the right technology that will lead to the improvement of business processes, provide timely information to employees and will be easy enough to use [3]. Measures of CRM include analysis, planning and control, initiation, stabilization, solidification and revival relations with customers.

Information systems and agriculture

The contribution of ICT to agriculture is rapidly changing due to the new technologies, new applications and new business models, and their wider availability and affordability, that are enabling widespread innovation in addressing the needs in agriculture [4]. FAO points out five basic categories through which ICT is used in the agricultural sector. These categories include: technical and economic development, community development, research and development, development of small and medium sized (SME) enterprises and networks [5].

Technical and economic development for farmers - Like with any change in technology, economic impact of ICT occurs through improvements in efficiency and increased productivity. This improvement is manifested in: improving efficiency in the allocation of resources, reduction of transaction costs, and technical improvements. ICT can contribute in reducing of uncertainty in the activities and transactions, reducing the incompleteness of the market and reducing the volume of incomplete information that may arise from the relatively informed person. There are many examples in which you can see how the improved production and market information are relevant to farmers who are often vulnerable group in this process. This may include extension and research on the adoption of new sorts of crops, machinery, control of pests and weeds, treatment and care of livestock.

Community development - In addition to the use of ICT that can be of direct usefulness in agricultural organizations, its application affects the development of local communities. Some of the priority areas for ICT and community development include reducing communications costs, as well as universal access to human resource development, including health and education. The development of media centers is an important innovation, which is supported by the fact that they are becoming a central place where the public can obtain and use information. This may include information about the services provided by government, private sector, society and others, as well as the way to approach this type of support. Also, this can include an assistance for small businesses, the ways to access public subsidies, advice on health and education, employment opportunities and constitutional rights.

Research and development - third use of ICT is related to its potential to contribute to the transformation in agriculture through improved education and research through an innovation system of agricultural science and technology. Expansion of traditional training and learning is comparatively expensive approach that requires preparation, printing and dissemination of training materials, a large number of trained/educated employees who carry messages to be transmitted and the risk to twist the message after possible transmission. Employees who are connected through ICT will be able to renew their knowledge to more continuous manner than the case was earlier, avoiding the criticism that the information gained from these services are obsolete or irrelevant.

Media networks - marketing systems absorb surpluses through e-commerce, improving the efficiency of agricultural products circulation. Through agricultural e-commerce transaction facilities of this information allow users to submit and edit on-line orders, perform on-line payments and receive automatic notification about the status of their order. Also, the companies can provide useful information to suppliers on their web site, such as user reviews, information on inventory, production schedules, information about product demand (actual and forecast) on-line.

Effective adoption of Information and Communication Technologies (ICT) now has a proven record in many parts of the world and a demonstrated potential to attain significant economic, social and environmental benefits at local, national and global levels [6].

CRM for agricultural organizations

CRM is the alignment of business strategies, organizational structure and business culture, based on customer information and information technology, in order that all contacts with clients meet their needs and achieve business benefit or profit [7]. The success of organization depends on the elements necessary for the proper functioning of marketing in general. These elements include [8]: basic strategic directions of development of the organization, and good knowledge of business and competition, knowledge of final customers and business customers, their needs and desires, characteristics, the impact of certain factors on their behavior, the actual marketing or market way of thinking, understanding the role and importance of all persons involved in the process of creating and delivering the value (customers, business partners and employees i.e. organization), organization acting as a whole - an integrated approach to managing individual channels of communication and sales, and monitoring of key data. A lot of attention is focused on CRM as a process of management in order to enhance performance of the organization. However, to reach high enterprise performance based on various types of benchmarking and other techniques, it is necessary to develop a system of motivation, without which actions to improve efficiency will not be sustainable with long-term nature [9]. Also it need to be paid attention on the way how the

CRM programs are implemented and managed, and what influence they have on the performance of agricultural organization.

Six activities to include CRM program for agricultural business are as follows [10]: CRM objectives; Types of accessible data about customers; Use of customer data for management decision-making; Market approach; Tactics used to develop and maintain relationship with customers; Assessment of the technological infrastructure that is currently used.

CRM objectives - Some of the main goals of agricultural businesses which directly affect the performance of agricultural organizations are: the maintenance of long-term relationships with customers, customer retention, gaining the reputation of fairness with customers, providing value to customers, increase of customer loyalty, achieving mutual trust with customers, increasing customer satisfaction for products and services.

Access and collection of customer data – Abilities, essential to the success of agricultural organizations, are collection of information on prices and customer lifecycle. Most operational units of agricultural organization do not collect or have access to information on prices of services. This is nothing strange, because the data on the price of services is much more sophisticated data type than names, addresses or email addresses of the customer. As such, it is very likely that the collection or access to such data waste resources (money, people, technology) - so not all agricultural organizations are able to gather and assess information on the price of services. The inability to collect information on prices of customer service and access that information is denying agricultural organizations the opportunity to follow the prices of customer services and to assess whether they spread too little or too much toward the customers. In contrast, collection or access to such information puts the organization in a relatively better position to determine how resources are allocated to individual customers and they can improve profitability and ability to achieve CRM goals.

The use of customer data - The success of CRM in agricultural organizations depends on the extent of how much their operational unit uses information about customers. Assessment of marketing strategies for products and services and customer segmentation based on the value that each customer represents for organization is the key to the success of agricultural organizations. Agricultural organizations use customer data to analyze trends, analyze the impact of competition on customer base of operational unit of the agricultural organization, evaluate marketing strategies for products and services, create a product and customer service, and finally segment customers based on the value that each has for the organization. Agricultural organizations have an affinity for analyzing customer responses to promotions, analyzing new trends, analyzing the impact of competition on the customer base of operational units of the agricultural organization, and customizing products and services for customers. The use of customer data is also an important factor contributing to the meeting and surpassing the operational units of the agricultural organizations expectations, as

using and analyzing customer data potentially helps operational unit in the understanding of its customer base and provides insight into which products and services should be placed towards customers or which tactics to be used in developing and maintaining relationships with customers.

Market approach – When approaching the market, agricultural organizations need to use strategies such as: superior quality, superior service, product differentiation, innovation, customized offer of products and services, as well as low price. The main principle to attract customers is centering on superior service and quality of products. Advanced agricultural organizations tend to focus on innovation - their position with regard on the effect may be a key factor for the application of this market approach. However, these organizations generally include large companies, therefore their ability to attract more resources (money, people, technology) can also have a strong impact in their market approach in this way.

Tactics used to develop and maintain relationships with customers - CRM is primarily developed as a need to achieve close relationship with customers. Using CRM methodology it is possible to generate a close relationship with customers and thus contribute to the success of the organization [11]. One advantage agricultural organizations have compared to other business models is that they can get full trust of their targeted groups. Also the adaptation and innovation of technology are major advantages. With all these available, a business model can be created that is based and focused on customers more than any model in other industries. CRM is not a technology game. CRM needs to rely on building confidence and relationships. Trust will greatly affect the success of CRM. CRM is a strategy based on the focus on customers, the customer knowledge, and on goal to meet customer expectations. CRM involves management based on customer experience, user knowledge and also based on the approach to customers. Furthermore, effective CRM provides the value as defined by the customer - at any point in the customer lifecycle and allows multi-channel interaction (internet, telephone, personal contact, social networks, etc.).

Infrastructure of information technology - CRM solutions are designed to provide knowledge that is necessary for the development and implementation of "smart" strategies with the goal to maximize customer profitability, and thus provide a competitive advantage of organizations. With the analysis of CRM technology customer can be understood and there is no need to react again when a problem occurs, but proactively find hidden opportunities to meet growing customer requests. A key success factor of CRM concept is customer expectations that organizations need to anticipate. It is therefore necessary to make a platform for communication with customers, and to gather and analyze the crucial information from them. Agricultural organizations in the development use information technology to gather data about customers and to place them in centralized databases. From the first contact with the customer, operational unit of agricultural organization should keep important customer information directly into the

database. Using customer data stored in a centralized database enables faster data search, which will increase productivity.

With Internet, organizations now have, like the merchants in their shops once had, the permanent access to the movement of goods and customer behavior. Achieving the relative advantage based on CRM is registered as an influential variable on attitude of acceptance of new technology. This variable is an indicator of perceived usefulness of new technologies. It is important to know that at the same time there is no confirmation of influence of technology complexity and compatibility with the existing work methods, which represents indicators of the perceived easiness of use. In addition to internal barriers in the organizations, there are very significant external barriers of acceptance of the new concept. Although the features of eCRM are great, there are very important challenges facing the organizations that are trying to build long term relationships with their customers using this channel.

The foundation of successful CRM strategy is the development and implementation of data warehouses. This is a technology that allows organizations to collect and store large amounts of customer data in a format that allows data to be analyzed and to be managed in order to provide valuable business information database about the customer. Many organizations that have successfully implemented a data warehouse reveal that implementation resulted in millions of dollars in savings, once the data warehouse is deeply integrated into their business processes to become a critical system, and even before they become part of a successful CRM strategy. Data Warehouses are well accepted in many business sectors and companies within these sectors, as a core component of business, as well as the building of block for corporate CRM strategy. This technology is a prerequisite for one-on-one relations with customers for those organizations that may include information as the most important resource of the organization. Merging this technology into a comprehensive CRM infrastructure that meets business needs of corporation is the challenge which is faced by the project team responsible for CRM strategy development responsibility. This challenge begins with the data warehouse project.

The challenges and benefits of using CRM in agriculture

Managers must support the efforts of the operational units of agricultural organizations so they can make the best use of customer and other data in their information systems. Agricultural organizations have different types of information needs during each stage of the process, ranging from customer information, weather forecasts, pest attacks, inputs, cultivation practices, pest and disease management and prices [12]. There are numerous instances where improved production and market information is important to organizations. These might include extension and research on adoption of new crop varieties, mechanization, pests and weed control, processing and the care of livestock [13].

The lack of strategic focus and incomplete data can be seen as a challenge, depending on agricultural organization business success. Successful organizations

do not see these two factors as big challenges they need to face, while the organizations that are not successful consider these factors a big challenges in the best use of customer data in databases of operational units of agricultural organizations. Finally, organizations that have proved to be successful face fewer challenges than the organizations that are not successful, that also consider incomplete customer data as the main challenge. This is probably the factor that contributes the most to the high level of commitment while approaching the market and to low level of performance. Agricultural organizations that had best performance had higher goals, they collected more sophisticated customer data, they used series of tactics to develop and maintain relationships with customers and faced fewer challenges during the best use of customer data in information systems.

Benefits of successfully implemented CRM for agricultural organizations are a numerous [14]: Increased sales; Increased profitability; Increased expansion of the product; Increased customer satisfaction and loyalty; Increased employee satisfaction; Reduced costs; Increased retention of the existing customer base in time of economic uncertainty; Increased chance of obtaining new customers.

Since CRM is often designated as a strategy, if accepted as one, it can lead to the conclusion that CRM must have a series of activities which will provide the organization with the chance to gain or keep the competitive advantage. It is necessary to overcome the differences in respect to agricultural business with development of classification of the agricultural organizations, explanation of their CRM programs and highlights of the key differences across the range of activities. The objective is to better understand differences in CRM performances of agricultural organizations and to understand what encourages these differences. Finally, the resulting classification will allow marking of the CRM program as successful or unsuccessful and it will allow deeper understanding of why are some agricultural organizations more successful with the use of CRM than others.

CRM for agricultural organizations needs to provide the following:

- Information management – practical way to build database, working with available data, interface that is easy to use, search facility;
- Data analysis – list of company's assets, reports in graphical format, indentifying top buyers;
- Identification of key customers – setting parameters for customer ranking, ranking reports to show key customers. Ranking customers is first step to a designated customer loyalty program; The customer who is loyal, in addition to buying company's product, is spreading positive promotion and helping the company to attract new customers [15].
- Monitoring of contact activities – monitoring contacts with customers in desired time frame.

When agricultural organization collects and analyzes customer data to better understand customer behavior, this organization can develop the approach to successfully market its products and services, and implement specific tactics to

develop and maintain relationships with targeted customers. When customer data is collected, stored and analyzed through the use of information technology, one can evaluate the success of agricultural business, because with the use of information technology organization can develop a better understanding of its customer base. A large number of obstacles exist in the management of this information, so the better understanding of obstacles is needed to make the better use of customer data in information systems. The views of managers on the CRM programs of their operational units are very important, as well as which metrics are considered important by them, what types of customer data are collected or at disposal, the use of customer data, market access, the tactics used to develop and maintain relationships with customers, assessment of information technology infrastructure, and the challenges they face in the best use of customer data in information systems. These areas include the entire chain of events, starting with the collection of customer data and their conversion into the information needed to make managerial decisions, up to the performance of the company. However, if CRM system is not accepted there will not be a return on investment. The problem about determining the level of ROI is very present. Many organizations are looking for evidence of success in the profitability of investment in CRM systems. All effects of the implementation are not immediately visible, and behind it may hide what seems to be an unsuccessful implementation and some time must pass to gain positive effects with specific corrections. All this points to the problems of measuring ROI and defining criteria for assessing the success of the implementation of CRM solutions. Most of the Internet users have the basic idea to compare different offers so the exposure of targeted customers of organizations to messages and offers from others is imminent. A successful CRM program provides the characteristic ability of the organization: knowledge about their customers, which is obtained by collecting and analyzing data and transforming this data into information for use in making of management decisions. With this knowledge about customers, organization can develop customized marketing combination (price, product, place, promotion) for each customer and start engaging in cooperative and collaborative relationships with their customers.

CRM strategy related to agricultural organizations gives the possibility to answer numerous questions like [16] on which customer segments should organization focus on the market, what information or data about customers are necessary for determination of individual customer segments, how to collect data, which strategies of data collection are needed, which segments are most valuable, what types of communication and strategy should be established with these segments, what products and offers related to a specific segment are the promising ones, what steps are necessary for successful implementation of designed strategy, what CRM solution is useful for business, etc.

Summary

Agricultural organizations must create a customer knowledge base so their products and services could meet current customer needs and desires. In addition to the current, agricultural organizations need to pay attention on potential and unexpressed customer needs and desires in order to use gained information and to adapt their offer with the goal of giving satisfaction to the customers. To keep this possible it is necessary to create and constantly maintain updated knowledge base, and to use obtained data and information in the daily businesses of the organization and to improve customer knowledge every day. Successful agricultural organizations have great performances, the most ambitious CRM objectives, they collect the most sophisticated customer data for their customer base and meet with fewer challenges in the best use of these information in information systems. CRM systems are needed in agricultural businesses to make the best use of the benefits of relations with customers. They are not just a technical solution for customer relationship management, but their role has tangible business goals. Ideally, CRM provides to the organizations to adjust their products and services for each customer. CRM can be used for personalizing one-on-one experience that will give individual customer a sense that he is completely taken care of, which opens new marketing opportunities based on customer preferences and history. With the development of business applications on the Internet, CRM has improved organizational capabilities by providing access to its customers and suppliers via the Web (Internet network). Web experience and communication over a wireless network called eCRM. Internet improves eCRM; provides the opportunities that are attractive to customers and businesses. In today's globally competitive environment, organizations must do everything to reach new customers and above all to keep profitable and loyal customers and CRM enables them that.

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ZASTOSOWANIE ZARZĄDZANIA RELACJAMI Z KLIENTAMI (CRM) W ROLNICTWIE

Streszczenie: Decyzje biznesowe wspierane przez strategie zarządzania relacjami z klientem CRM są interesujące dla: sieci handlowych, operatorów telekomunikacyjnych, banków, firm ubezpieczeniowych, biur podróży, ale także dla organizacji rolniczych. Artykuł ten podkreśla znaczenie rozwoju IT w strategii zarządzania relacjami z klientem. Rozwój technologii informatycznych w organizacji rolniczych, łatwiejszy i tańszy dostęp do nich, umożliwia rozwój elektronicznych relacji z klientami (e-CRM) które automatyzują i upraszczają dialog z klientami i stanowi odpowiedź na ich potrzeby w czasie rzeczywistym, co prowadzi do wzrost ich satysfakcji i lojalności. Ta strategia biznesowa pomaga organizacjom rolniczym w ulepszaniu swoich produktów i usług dla każdego klienta.

客戶關係管理 (CRM), 農業

摘要：商業決策支持的戰略，客戶關係管理CRM是有趣的零售網絡，電信運營商，銀行，保險公司，旅行社，同時也為農業的組織。本文重點介紹了它的重要性開發的客戶關係管理戰略。農業組織和更容易，更廉價地獲得信息技術的發展，使電子與客戶的關係 (E-CRM) 它可以自動和簡化與客戶的對話，並提供一個答案，他們的發在實時的要求，增加客戶忠誠度和滿意度。此業務戰略，幫助農業組織適應他們的產品和服務，為每一個客戶。