

The Effect of Organizational Readiness on CRM and Business Performance

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Abstract — CRM is a business strategy which aims to create value for both organization and customers through initiating and maintaining customer relationships. As a core strategy, CRM is based on using a marketing information system and the company's IT infrastructure.

CRM technology plays an important role in creating customer knowledge, which is the core of any CRM initiative. The CRM strategy will not yield the expected results without the proper use of information technology in the CRM processes.

Organisational CRM readiness is related to the level of available technological resources which may be oriented towards CRM implementation.

This paper examines the direct outcomes of the CRM activities, as well the relationship among these outcomes and business performance. We also analysed the effect of the level of organisational CRM readiness on the degree to which companies implemented CRM activities. We conducted a survey on 82 companies operating in the Western region of Romania, which revealed that CRM implementation generates superior business performance.

Keywords — business performance, CRM activities, CRM outcomes, CRM readiness

I. INTRODUCTION

THE Customer Relationship Management (CRM) concept has its roots in the Relationship Marketing theory, which is considered one of the main areas of modern marketing development, generating a variety of topics for researchers [1], [2]. Often, both in academic and business literature, the terms “relationship marketing” and “customer relationship management” are used as synonyms [3].

Relationship marketing involves building long term interactive relationships, especially with customers, which is the most important benefit for the organizations which have adopted this concept [4]. This is underlined by Gronross [5], who states that the purpose of relationship marketing is to establish, maintain and enhance relationships with customers and other partners. Nevin [6] points out that CRM is a concept used to reflect a variety of themes and perspectives. Some of these issues provide a narrow perspective on CRM. At tactical level, CRM is database marketing or electronic marketing [7], [8]. At strategic level, the goal of CRM is to create value both for customers and shareholders. Thus, CRM involves the use of information technology and focuses on individual customer relationship to design a strategy for maintaining long term relationships with customers [7].

Both relationship marketing and customer relationship

management focus on cooperation and collaboration between the company and its customers, and / or among other participants in the relationship. Dwyer et al. [9] have characterized such relationships as interdependent and long-term oriented, rather than being focused on short-term discrete transactions. According to Boulding et al. [10], CRM is the result of continuous development and integration of marketing ideas, available data, technologies and organizational approaches, which is an operational platform relationship marketing manifestation.

II. THEORETICAL BACKGROUND

There is a variety of opinions regarding the CRM conceptualization. Up to now, the researchers have not agreed on a single definition of CRM, fact which shows that this area is still in its development stage.

The main goal of CRM is to increase the marketing process productivity. This goal is achieved by increasing the marketing process' efficiency and effectiveness [11]. In the CRM approach, the marketing efficiency is achieved through collaboration and cooperation processes, which help reduce transaction costs, as well as company development costs. CRM consists of two main processes: development of customer-oriented business and building partnerships with the most important customers. These lead to creation of superior value for both parties [3].

The literature review conducted by Zablah et al. [12] identified five conceptualizations of CRM: strategy, technological instrument, process, capability and philosophy.

As a strategy, CRM differentiates customers based on their loyalty and profitability. Customer relationships should be managed selectively, and resource allocations should be based on customer value. In this view, the goal of CRM is maximizing business performance by managing the customer relationship portfolio.

As a technological instrument, CRM requires the integration of IT&C in the customer-related processes, as a prerequisite for CRM strategy implementation. Using information technology, companies are able to collect, store, analyse and disseminate customer knowledge, which increases the company's ability to respond to individual customer needs. Technology development represents the foundation for the integrated CRM approach, as technology allows for integration of customer data with market data. The integrated databases are used for market [13].

However, CRM technology adoption is not enough for CRM strategy implementation. Given that CRM strategy is focused on increasing customer lifetime value, CRM technology is the instrument that allows for this goal to be attained by: storing data collected from various customer contact points, providing analytical tools for assessing the customer lifetime value, estimating the net present value of marketing campaigns, purchasing behaviour modelling. According to Buttle [14], this technology enhances the customer communication and collaboration processes, which ultimately increases the supplied value. Therefore, CRM technology adoption represents the integration of information technology into the customer-oriented processes, as part of CRM strategy implementation.

Organisational CRM readiness is related to the level of available technological resources which may be oriented towards CRM implementation

As a result of adopting the information technology, the company is able to manage the customer knowledge and increase its ability to customise its response to the individual customer's needs [13].

CRM implementation requires an integrated approach to the customer database and the marketing information system, as well as employing specific data mining tools [15].

As a capability, [16] CRM represents the mix between customer knowledge and the skills to develop and manage individual customer relationship.

As a process, CRM has been defined from two perspectives: (1) macro level: aggregate process of building profitable and mutually beneficial relationships with customers, a process that includes sub-processes ([17], [1], [18]) and (2) micro level: only manage interactions with customers, to develop and maintain profitable relationships with them in the long run [19].

As a philosophy, CRM is focused on customer relationship initiating, maintaining and enhancing.

Viewed as a process, CRM involves initiating, maintaining and terminating customer relationships across all contact points with customers, in order to maximize the relationship portfolio value [1].

In the previous literature in the field we found three CRM dimensions: operational, analytical and collaborative ([20], [21]). These CRM dimensions must be analysed taking into account the strategic nature of CRM ([14], [22]). Basically, the strategic nature of CRM refers to its strategic positioning within the organization (not as a technology based solution) and to its ultimate goal: to deliver superior value to customers.

According to Boulding et al. [10], the success of the CRM project relies on strategic planning. Before adopting CRM, the organization should conduct business environment analysis, to identify development opportunities and to take decisions regarding the customer relationships to be initiated. It is important for the company to have a clear view of the reasons for which the customers are willing to enter in a relationship. The customers should be viewed as major stakeholders, not as a target market [23]. The success of a CRM project depends

also on the company's clear view on its current market positioning and its future role on the market. And this view has to be consistent with the marketing concept – company-wide focus on customer.

The operational dimension is related to various projects of automating sales, services and marketing processes [14]. The software solutions suppliers provide a wide range of CRM solutions for automating the sales, marketing and services functions.

The automating is implemented by using software which allow for customer segmentation, communication campaigns management and response to customers' requests. Regarding the sales force, the automating is related to opportunities management, contacts management, generating and customising the offers. CRM software is also used in estimating customer lifetime value, targeting potential customers and allocating them to the sales force team members.

The analytical dimension is related to measuring the customer relationship outcomes, to customer data analysis and decision-making (based on customer knowledge) regarding marketing strategies and tactics [24]. This CRM dimension includes activities related to customer data collecting, storing, analysis, interpretation and use [22]. It uses special data mining and forecasting techniques, aimed at identifying potential customers, establishing customer profiles and purchasing behaviours [25].

The collaborative dimension is related to the interactions between the company and its customers at all contact points [21].

Web portals use led to the development of the collaborative dimension of CRM [26]. Many companies are facing the challenge of using the Internet for enhancing customer communication channels. The challenge resides in managing the risk of conflicts among various communication channels. The channels should be complementary and communicate consistent messages [27]. CRM software solutions may co-ordinate the channel-specific communication flows.

The collaborative dimension integrates CRM with other company systems. CRM may also be extended to employees, suppliers and other business partners. CRM software solutions (integrated into web portals) allow for co-ordination of partners-related processes. This way, it is easier to manage information regarding customers, orders, stocks, product ranges etc.

The CRM outcomes are influenced by several CRM implementation issues [10]; technological systems and processes are decisive for CRM activities, but without the appropriate human interactions the actual outcomes will not reach the expected level.

The goal of measuring the organisational CRM readiness is to assess the degree to which the company is prepared for CRM adoption, compared to its competitors. Ryals and Payne [28] identified several stages of CRM development: pre-CRM planning; data repository building; moderately developed; well

developed and highly advanced. Each of these stages represents a level of CRM maturity, the differences among them being the various levels of using customer data to increase customer experience quality and customer lifetime value.

III. RESEARCH HYPOTHESIS AND MODEL

Payne and Frow [26] believe that one of the four key areas of CRM implementation is the assessment of organizational CRM readiness. This is viewed as a key success factor of CRM implementation initiatives ([29], [1], [30]). Organizations that have adopted information technology and have the ability to integrate customer data in the marketing information system, have the required resources to implement CRM [30].

Organisational CRM readiness is an antecedent of customer relationship initiating and maintaining activities. CRM technology allows the companies to integrate all the existing customer data, existing across departments, collected through different communication channels and customer interactions. The company is thus able to determine the individual customer profile. Based on it, the company may decide to develop the customer relationship and increase the customer's lifetime value, by offering customised products and/or services [7].

Reinartz, Krafft and Hoyer [1] consider that the level of CRM technology is a moderating variable for the relationship between the CRM adoption and business performance. Implementation of CRM activities influences business performance only when companies assign technological resources needed for these activities.

In the research model we assume that companies with the appropriate technical and informational infrastructure, carry out CRM process specific activities. Thus:

Hypothesis 1: There is a positive link between organizational CRM readiness and carrying out customer relationship initiating activities.

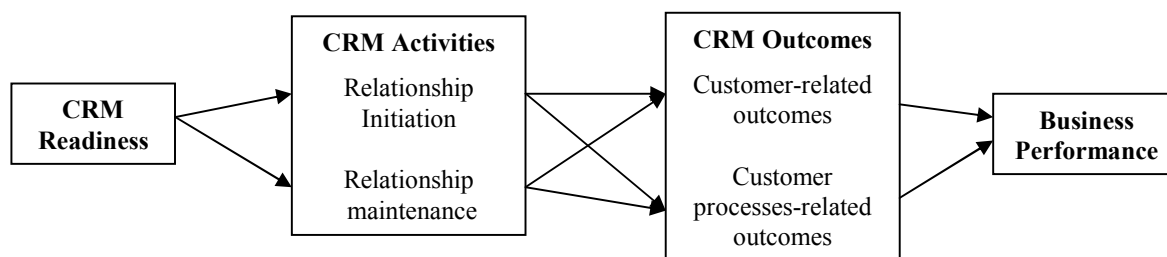


Figure 1 research model

Hypothesis 2: There is a positive link between organizational CRM readiness and carrying out customer relationship maintaining activities.

According to Izquierdo et al. [31], the process of developing a customer relationship consists of activities aimed at: (1) customer acquisition, (2) customer retention (in order to keep the customer in the company's portfolio) and (3) maintaining

the customer relationship.

Jutla, Craig and Bodorik [32] propose a framework for measuring the performance of CRM activities, using metrics such as: customer retention rate, customer satisfaction, customer profitability, customer value, product/service customization degree. Sheth and Parvatiyar's research [2] revealed that CRM activities increase business productivity by increasing the efficiency and effectiveness of marketing activities. Based on this, Teng, Ong and Ching [33] found that CRM activities have a positive effect on cost reduction, employee productivity and product quality. Verhoeff [34] suggested that CRM activities have a direct positive impact on customer retention rate and customer share. Mithas et al. [35] show that CRM activities contribute to increasing the customer-knowledge base, which, in turn, is positively related to customer satisfaction.

According to Reinartz et al. [1], implementing the CRM process (such as customer relationship initiating and maintaining activities) has a positive effect on company's market share, sales growth and profitability.

Based on this previous research, we formulate the following research hypothesis:

Hypothesis 3: The customer relationship initiating activities have a positive impact on customer-related outcomes.

Hypothesis 4: The customer relationship maintaining activities have a positive impact on outcomes related to customer processes.

Hypothesis 5: The customer relationship initiating activities have a positive impact on customer-related outcomes.

Hypothesis 6: The customer relationship maintaining activities have a positive impact on customer processes-related outcomes.

Previous research by Hallowell [36], Kamakura et al. [37], Reinartz and Kumar [38] and Reinartz et al. [39] on customer satisfaction and customer loyalty, show that CRM process specific activities have a significant positive impact on sales growth. Meanwhile, sales growth is positively related in most cases with an increase in business profitability.

The customer acquisition process, which corresponds to the customer relationship initiation process from our research

model (See Figure 1) was found in previous research to have a positive effect on business performance [40].

The CRM activities outcomes (both customer related – e.g. customer satisfaction and customer loyalty – and customer processes related) should be positively related to general business performance. Thus, we formulate the following research hypothesis:

Hypothesis 7: There is a positive relationship between customer-related outcomes and business performance.

Hypothesis 8: There is a positive relationship between customer processes-related outcomes and business performance.

IV. RESEARCH METHODOLOGY

We developed a set of subjective measures based on previous research. We tested the scales validity on the data we collected from 81 companies operating in the Western region of Romania (see Appendix 1).

A. Measures

The constructs of the proposed research model were operationalised using adapted scales from previous research.

For *organisational CRM readiness* we used a 6 item, 5 point Likert-type scale. The scale measured the degree to which information technology is used in the customer oriented processes.

For *customer relationship initiation activities*, 5 points Likert-type scale. The 7 items used referred to activities aimed at identifying profitable (potential) customers and contacting them.

For *customer relationship maintaining activities*, we used a 6 item, 5 point Likert-type scale. The scale measured the degree to which activities aimed at maintaining customer relationship are carried out. The scale ranged from “To a very high degree” to “Not at all”.

CRM outcomes were classified into two categories: (1) (based on Hong-kit Yim et al. [41] and Verhoeff [34]): effects on customer-related indicators (customer satisfaction, customer retention, current customer revenue) and (2) (based on Iacovou et al. [30]): effects on customer-related processes. In both cases, 4 items 5 point Likert-type scales were used, ranging from “To a very high degree” to “Not at all”.

For *business performance* we used and adapted the subjective measures previously employed by Deshpande et al. [42] and Jaworski and Kohli [43]. Both financial (sales and profitability) and non-financial (market share and customer base) measures were taken into account.

B. Sampling and Data Collection

We used a database containing contacts of 2000 companies operating in the Western region of Romania, in various industries and of different sizes. We sent invitations to each of these companies, asking for their agreement to take part in our research. 211 of the companies returned a positive answer,

which gave a 10.55% response rate.

We sent mail or e-mails with the questionnaire to all of these 211 companies, to the marketing/sales/customer relations executives, mentioning a 60 days deadline for returning the questionnaire. Half-way through this deadline, a reminder was sent to all companies who had not returned the questionnaire.

In the end, there were 102 companies who returned questionnaires with answers. 20 of these questionnaires were invalidated, due to missing data or inconsistency. The valid sample had a size of 82 companies, which represent a response rate of 38.86% based on the number of companies which initially accepted to take part in the survey. The response rate based on the number of contacted companies is 4.1%.

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C. Sample Structure

Companies included in our sample come from various industries (banking, tourism, telecommunications, manufacturing, wholesale, retail). These industries have been grouped into three economic sectors: most companies in the sample come from the services sector (42.68%), followed by those from the manufacturing sector. Companies who operate in the trade sector account for 24.39% of the total number of companies included in the sample.

Nearly half of the companies included in our sample had a turnover of over 1,000,000 euro in the year 2007. Small companies follow, with a turnover of under 100,000 euro in the same year, and a share of 29.63% of the sample. Medium-sized companies (with a turnover between 100,000 euro and 999,999 euro in 2007) account for about 20% of our sample.

Companies with between 151 and 250 employees have the highest share in the sample (49.4%). Large companies (over 250 employees) are a distant second, accounting for only 25.93% of the sample, while small companies (with less than 10 employees) have about the same share (24.69%).

V. DATA ANALYSIS AND RESULTS

The data analysis process was conducted using the SPSS 12 statistical software.

Taking into account that the measures we used represented modified versions of already validated measures, we conducted a reliability analysis of our measure scales. For a scale to be reliable, the value of the alpha Cronbach statistic should not be less than 0,7 [44].

We conducted a first order exploratory factor analysis. In this stage, we eliminated the items with a factor loading $<0,5$. With the retained items, we conducted a first order confirmatory factor analysis and the alpha Cronbach statistic was again computed. If no items were rejected due to low factor loadings, no confirmatory factor analysis was conducted.

After the reliability analysis, an analysis of construct

validity was conducted. Construct validity was analysed under two aspects: convergent validity and discriminant validity.

Convergent validity of each construct was analysed based on the correlations among the construct items. We used the Pearson correlation coefficient to this goal. Convergent validity is confirmed if the construct items are strongly correlated with each other.

After confirming convergent validity, we proceeded with item aggregation. Each case score for a construct was computed as an average of the scores for the individual items.

Discriminant validity requires that any item is more strongly correlated with its construct than with any of the other constructs in the model. Again, we used the Pearson linear correlation coefficient, to analyse the discriminant validity of the constructs.

After conducting the validity analysis on the constructs in our proposed conceptual model, we reached the following conclusions:

All constructs were found to possess discriminant validity. Each item is significantly correlated with its construct, and this correlation is stronger than the item's correlation with any of the other constructs included in the research model (see Appendix 1).

TABLE I: DESCRIPTIVE STATISTICS

Construct	N	Average score	Std. Dev.
Organisational CRM readiness	82	4.09	0.76
Customer relationship initiating activities	81	3.90	0.76
Customer relationship maintaining activities	81	3.57	1.00
Customer related outcomes	81	4.11	0.60
Customer processes related outcomes	81	3.97	0.73
Business performance	82	4.24	0.55

The individual score for each construct was computed as an average of the distinct variables that constituted the construct (see Table I).

The investigated companies use CRM activities mainly for initiating customer relationship, but also for maintaining the relationship.

The main outcomes of CRM activities are perceived to be those customer-related (customer retention, sales growth, customer loyalty and customer satisfaction).

For testing the hypothesis, we used linear regression. The significance level, un-standardised coefficient, correlation coefficient and determination coefficient were used for verifying the hypothesis.

All research hypothesis were found to be valid, with $p < 0.01$ in all cases (see Table II).

TABLE II: HYPOTHESIS TESTING RESULTS

Hypothesis	B	t	p	Result
H1	0,604	6,657	0,00	Sustained
H2	0,544	4,056	0,00	Sustained
H3	0.334	4.14	0.000	Sustained
H4	0.344	3.44	0.001	Sustained
H5	0.333	5.82	0.000	Sustained
H6	0.345	4.74	0.000	Sustained
H7	0.271	2.80	0.006	Sustained
H8	0.317	4.16	0.000	Sustained

B- un-standardised regression coefficient

t – t value

p – significance

VI. DISCUSSIONS

The level of organisational CRM readiness (measured through technical and informational infrastructure and through employees' capability of integrating information technology into their work) was found to be quite high within our sample.

Our assumption that the technical and informational infrastructure development favours CRM activities is confirmed for both types of CRM activities (initiating and maintaining customer relationship). The regression coefficient is positive, indicating a positive effect of CRM organisational readiness on the actual CRM activities. These effects were found to be significant, as $p < 0.01$ in both cases. This finding is consistent with previous research ([1]) which found that CRM technology enables the implementation of CRM activities.

However, CRM technology may have a negative effect on business performance. That is the case when organisational CRM readiness is low. Jayachandran et al. [45] suggest that successfully implementing CRM activities is influenced both by company's ability to design a customer oriented informational system and by company's technological infrastructure.

The investigated companies carry out CRM-specific activities for both customer relationship initiation and maintenance. The main activities for customer relationship initiation were found to be: identification of customers' needs and IT-based analysis of market data gathered from various sources.

The process of maintaining the customer relationship was found to consist mainly of programmes focused on gaining customer loyalty, by offering incentives when collaboration between the two parties intensifies. This finding is consistent with the results from Reinartz et al. [1], who suggest that activities aimed at initiating and maintaining customer relationships focus on maximising business profitability.

CRM activities yield positive outcomes, both customer-related and customer process-related. This result is consistent with the findings from Bohling et al. [46]. They found that the main positive outcomes of CRM implementation refer to: customer experience, customer relationship development, customer attraction rate, customer complaints management, customer retention rate and new product development.

Our findings are also consistent with Hong-kit et al. [41]: CRM specific activities have a positive effect on customer satisfaction, customer retention and sales generated by the current customers. We also confirmed Ryals' results [47], by finding that CRM implementation has positive effects both on customer acquisition and customer retention.

Using CRM applications has a positive effect on customer-related results, especially on customer satisfaction (as Mithas et al. [35] previously showed). Verhoef's [34] results were also confirmed, as we found CRM activities to have a positive impact on customer retention and customer share. The effects of CRM implementation on customer related processes are partially consistent with Teng et al. [33], who studied the effects on several general company processes. Following CRM implementation, the customer perception on the company's services has improved, as well as the response speed and accuracy to customer complaints.

The customer-related outcomes (customer retention, satisfaction and loyalty) were found to have a positive impact on business performance, results which are consistent with previous research ([37], [38], [48] and [49]).

The research conducted by Rust and Zahorik [50], Storbacka [51] and Hallowell [36] confirmed that customer satisfaction influences customer loyalty, which in turn has a positive effect on business profitability.

Anderson et al. [52] showed that organizations providing a high level of customer satisfaction record high level of profitability. Thus, a satisfied customer offers ideas for new products, is more likely to try the company's new or improved products, pays less attention to competitors' products and is less sensitive to the product price.

The positive effect of customer retention on business performance is explained by the fact that retaining a customer is usually less expensive than attracting a new customer [53], especially on mature markets. Customer retention should not be limited to maintaining customer value. Increasing the customer value (with an impact on overall business performance should be a permanent marketing goal.

Our research shows that companies use CRM activities to initiate and maintain customer relationships. CRM activities focus on gathering and integrating customer data available in all departments, in order to generate a unique view point concerning the customer.

Decision makers should approach CRM as an opportunity to increase customer value and to reduce the costs of attracting and retaining customers. CRM does not only allow for more efficient and effective customer relationship management, but also a more efficient and effective inside and across departments.

A possible cause for CRM implementation failures is that many companies approach CRM as an IT based solution. The use of integrated customer databases is necessary, but is not enough for CRM strategy implementation.

Given that CRM strategy is focused on customer profitability, CRM technology helps achieving this goal.

Customer databases store data collected from multiple points of contact with customers. Analytical tools allow the assessment of customer lifetime value, the effects of marketing campaigns and behavioural patterns. This technology improves communication and collaboration with customers, thereby delivering superior value [25].

If the company does not have a culture focused on development of long term customer relationships, CRM implementation might not yield the expected results. In this context, CRM implementation might involve an organisational culture change, from the transactional view (focused on company's products and brands) towards the relational view.

VII. LIMITATIONS AND FURTHER RESEARCH

Our survey presents several limitations. First, the final sample size is too small to be considered as highly representative for the whole statistical population. Also, the sampling procedure was not entirely random, which also hinders sample representativeness.

Second, the sample structure does not match the population structure. It is possible that the results we found to have nuances (or be entirely different) across industries, based on the specific context and the nature of the relationships.

Company size may also influence the results: large companies, with larger resources available, may be more inclined towards implementing CRM processes and technologies, while smaller companies may find this too expensive.

The available sample is too small to allow controlling for industry and company size.

These issues, however, open some directions for future research.

Research at industry level might reveal the differences across industries in the intensity of the effects we studied.

The market lifecycle stage may also have a moderating effect on the investigated effects: on an emergent market, companies may tend to focus on activities related to relationship initiating, rather than on maintaining current relationships. As the market grows, the competitive battle is focused on the new customers, not on the existing ones. On a mature market, the focus of the CRM activities will be maintaining current customers (i.e. preventing them from migrating towards competitors); as new customers are few, the competitive battle focuses on the existing ones.

The stage of the CRM implementation may have an influence on business performance. The early stages of CRM implementation require financial resources to be allocated to this end. If the effect (e.g. an increase in company profits) is not readily visible (and, chances are, it is not), the short term profitability might suffer.

Future research might also focus on the possible moderating effects on the CRM – business performance relationship. Possible moderators might include external factors (environmental turbulence) as well as internal ones (such as organisational culture or company size).

APPENDIX 1: ITEMS USED, SCALE RELIABILITY AND CONSTRUCT VALIDITY

CONSTRUCT Item	Initial Alpha Cronbach	Initial factor loading	Final Alpha Cronbach	Final factor loading
<i>Organisational CRM readiness</i>	0.878			
We have an informational system that allows us to collect data at all customer contact points		0.621		
We have a good technical and informational infrastructure		0.671		
We have the technical capabilities to rapidly adopt the new information technology in the work process		0.810		
We have the technical capabilities to maintain our informational infrastructure		0.840		
We have the capability to store all customer data in an integrated database		0.735		
Our employees have the capability to use the information technology in their		0.805		
<i>CRM activities for initiating customer relationship</i>	0.881		0.890	
We use data from various sources to identify customers with potentially high lifetime value		0.877		0.872
We integrate customer information collected through various channels (mail, phone, personal communication)		0.859		0.862
The collected data is used to identify new ways to segment the market.		0.799		0.801
The collected data is used to determine customer needs and requirements.		0.699		0.698
We customize the messages we send to our customers		0.494		
The collected data is analyzed and used in planning new customer acquisition strategies		0.768		0.770
We are able to identify low-profitability customers		0.613		0.612
<i>CRM activities for maintaining customer relationship</i>	0.894			
We focus on customer loyalty programs		0.822		
We customise our products/services, based on the customers' lifetime value		0.696		
We employ cross-selling strategies for high lifetime value customers		0.695		
We employ up-selling strategies for high lifetime value customers		0.778		
We reward high lifetime value customers when our relationship intensifies		0.793		
We reward referrals		0.811		
<i>Customer outcomes</i>	0.825			
Customer retention		0.668		
Revenues generated by current customers		0.659		
Customer loyalty		0.944		
Customer satisfaction		0.710		
<i>Customer processes outcomes</i>	0.871			
Increased sales force productivity		0.770		
Reduced customer service response time		0.882		
Increased customer service response accuracy		0.944		
Customers' general perception of our products		0.653		
Lower service costs		0.589		
<i>Business performance</i>	0.766			
Turnover		0.580		
Market share		0.595		
Profitability		0.840		
Number of customers		0.678		

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