Investigating the Impact of CRM Resources on CRM Processes: a Customer Life-Cycle Based Approach in the Case of a Greek Bank

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Abstract

Contemporary economy, which is characterized by globalization, increasing competition and advances in communication and information technology, force companies to depart from traditional marketing doctrines and adopt a customer-centric approach by focusing on managing customer relationships. Relationship marketing is a marketing strategy enforcing companies to deal with enormous customer data management challenges, thus necessitating the deployment of supporting IT systems. This need has been covered to a great extent by the development of Customer Relationship Management (CRM) systems. The aim of the present study is to investigate the impact of a company’s CRM related human, organizational and technological resources on its CRM processes. A customer life-cycle based approach has been chosen. As a result of this, CRM processes have been mapped on the initiation, acquisition, regain, maintenance, retention, expansion and exit customer life-cycle stages. Field research was conducted by utilizing an interviewer-administered questionnaire, which was developed by adopting relevant work reported in literature. The case industry chosen was the Greek banking sector. The survey was conducted among all the employees of a Greek leading bank’s 10 branches located in the region of Thessaly, who were involved in CRM processes. The final sample comprised 102 correctly answered questionnaires. Inter-item analysis was used to verify the scale’s factors for internal consistency or reliability. The Cronbach’s alpha, which was calculated for each scale, ranged between 0.819 and 0.912. Regression analyses were then performed to examine the impact of CRM resources on customer life-cycle stages. The results highlighted that CRM organizational resources are the most vital, since they have a positive effect on the processes of all customer life-cycle stages. Moreover, human resources were proved to have a significant effect on the early (initiation, acquisition, regain) and middle (maintenance, retention) customer life-cycle stages, while their impact on the late stages (expansion, exit) is minimal. Finally, technological resources were shown to have a small influence on the middle customer life-cycle stages.
1. Introduction

Contemporary economy, which is characterized by globalization, increasing competition and advances in communication and information technology, force companies to depart from traditional marketing doctrines and adopt a customer-centric approach by focusing on managing customer relationships (Bose, 2002). As a result of this, companies came to the conclusion that the focus of differentiation must shift from products and services towards customers (Teo et al., 2006).

Relationship marketing (RM) is an enterprise wide approach aiming to understand and influence customer behaviour through meaningful communications in order to improve customer acquisition and retention as well as profitability (Swift, 2001). It is consider as a radical shift of marketing theory and practice, which has been a topic of discussion and implementation among academics and practitioners since the early ’80s, having its roots in services and industrial marketing (Egan, 2008). RM promotes a holistic approach by introducing the notion of customer life-cycle (e.g. including the stages of acquisition, retention, expansion and recovery) and promoting the recognition of a wide range of company relationships (e.g. internal and external customers, suppliers, competitors, companies in other market segments). The aim is to develop and manage a wide range of mutually beneficial relationships.

RM strategies rely heavily on gathering and processing customer data in order to extract information that will help companies to identify ideal customers and customize their offerings. As a result of this, information technology plays a pivotal role as an enabler of successful RM strategies implementation. Customer Relationship Management (CRM) software systems are widely used since the late ’90s as information technology enabled relationship marketing solutions (Ryals and Payne 2001). However, as early efforts for the adoption of such systems have shown, successful CRM implementations can pose significant challenges. Digman (2002) pointed out that “the majority of CRM initiatives fail to meet expectations”. One of the most important lessons learned from early adopters is that there is a need to closely monitor the performance of RM strategy implementations, which are based on CRM systems and tend to be expensive. Today, it is common place that in order to take advantage of the CRM systems benefits, besides the apparent required technological resources, companies need also to invest on human and organizational related CRM resources (Keramati et al., 2010).

The customer-centric approach supported by CRM systems has many proponents in the banking sector. Banks were among the service industry pioneers in developing and implementing RM strategies, since they were between the first recipients of the radical changes that took place in global economy during the past few decades (Durkin and Howcroft, 2003). They operate in a highly competitive environment, where the acquisition of new customers has often been proved much more expensive than retaining and expanding the ones they already have. As a result of this, RM strategies based on CRM systems are common place in today’s banking industry.

Following an extrinsic customer-centric approach, CRM processes can be aligned with the customer life-cycle stages. The research presented here follows this approach and aims to investigate the effect of CRM related resources (human, organizational and technological) on CRM processes across the customer life-cycle, in the context of the Greek banking sector.

2. Research background

2.1. Relationship marketing

Interest in RM began to grow in the 1990s. Research published at that time (e.g. Reichheld and Sasser, 1990) showed the great impact on profitability that can be achieved even by small increases in customer retention rates. This made the marketing community more conscious of the necessity to manage customer relationships in the long term. Today it is widely accepted that customers are at the core of a business and therefore a company’s success depends heavily on effectively managing relationships with them.

According to Egan (2008), despite the fact that considerable research and practice took place during the past few decades, RM may still be regarded as an ‘umbrella philosophy’ with plenty of variations and definitions rather than a unified concept with commonly accepted objectives and strategies. Indicatively, RM has been defined by Swift (2001) as “an enterprise approach to understanding and influencing customer behavior through meaningful communications in order to improve customer acquisition, customer retention, customer loyalty, and customer
profitability”, while Parvatiyar and Sheth (2001) defined RM as “a comprehensive strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the company and the customer”. Perhaps the most comprehensive definition of RM was given by Gronroos (1994), one of the RM theory pioneers, who defined RM as the marketing approach aiming to “identify and establish, maintain and enhance and, when necessary, terminate relationships with customers and other stakeholders, at a profit so that the objectives of all parties involved are met; and this is done by mutual exchange of fulfillment and promises”. This definition implies that since each customer must be treated individually, the company must be in the position to recognize the relationship stage each customer is in and treat them in a customized manner. The introduction of various consecutive relationship stages in RM thinking lead to the formation of the customer life-cycle concept.

Andersen et al. (2006) claim that the trust and commitment, which can be developed between banks and their customers, are considered to be the most powerful competitive advantage for banks, a fact that explains to a certain degree why financial institutions have moved from transaction-based banking to a relational approach. Their research showed that bank customers accentuate their annoyance from product focused strategies, since they expect a more advisory and caring treatment. Therefore, a customer relationship approach in the highly competitive banking industry, where products and services tend to be more and more standardized, offers a differentiating factor.

2.2. Customer Relationship Management (CRM) systems

CRM can be viewed from a strategic or a technological perspective. The strategic perspective puts the emphasis on the design of RM strategies and its associated implementation tactics, irrespectively of any IT systems use, and thus overlaps with RM. It is worth mentioning that many authors use the terms RM and CRM interchangeably to denote the same concept. In this line, Rababah et al. (2011) described CRM as “the building of a customer-oriented culture by which a strategy is created for acquiring, enhancing the profitability of, and retaining customers, that is enabled by an IT application, for achieving mutual benefits for both the organization and the customers”. Reinartz et al. (2004) defined CRM as “a systematic process to manage customer relationship initiation, maintenance, and termination across all customer contact points in order to maximize the value of the relationship portfolio”.

According to the technological perspective, CRM is an IT system, which is an RM strategy enabler (Ryals and Payne 2001). Indicatively, Glazer (1997) argues that CRM is an information intensive process, which provides businesses a connection between marketing strategies and IT, thus enhancing profitability and supporting the development of long-term relationships with their customers.

CRM systems are used into the primary functions of sales, marketing and customer service. According to Peppers et al. (1993) an important drive for many companies to adopt CRM technology is the support it provides for discriminating profitable and unprofitable customers and providing personalized service, thus gaining greater customer retention. Especially in the banking sector, the utilization of data relevant to customers’ needs and behaviour, can lead to the identification of the most important customers, support the development of relationships with prospective customers and estimate not only the generated revenues but also any future possible opportunities for investments (Zineldin, 2005).

2.3. CRM processes

CRM processes include all the activities that take place inside a company, which influence the customer relationship quality and duration (Rababah et al., 2011). Geib et al. (2005) classified CRM processes into three groups, namely delivery processes (activities associated with sales, service support, marketing promotions and customer complaints), support processes (activities oriented towards what the market needs with the intention to develop loyal customers) and analysis processes (activities entailing analysis of the data acquired by processes from the other two groups and the creation of value leading to service innovation).

As it has already been mentioned above, the research presented in this paper views CRM processes closely linked with customer life-cycle. According to Imhoff et al. (2001), customer life-cycle defines the stages which customers go through, when considering, purchasing and using products. These stages are associated with the business processes that a company uses as the customer moves across the customer life cycle. Moutot and Bascoul (2008) imply the linking of CRM processes with the customer life-cycle concept, since they defined them as “the activities performed by the organization concerning the management of the customer relationship, grouped according to a longitudinal view of the relationship".
Various customer life-cycle models have been reported in literature, examples of which are the awareness, exploration, expansion, commitments and dissolution stages proposed by Dwyer et al. (1987) and the suspect, prospect, first-time customer, repeat customer, client, advocate, member and partner stages reported by Kotler (1997). Regarding the banking sector, Zineldin (1996) identified the early, development, long-term and final stages in the relationship between a bank and its customers.

2.4. CRM resources

2.4.1 Human resources

The introduction of a CRM system has a great influence on issues relevant to HR management, since employees are the first ones that confront the associated changes in everyday operations (Shum et al., 2008) and have to adapt to new ways of customer relationship management in order to achieve an effective CRM implementation (Boulding et al., 2005).

Zablah et al. (2004) and Srinivasan and Moorman (2005) pointed out the importance of human resources in enabling a company to collect customer data and disseminating it internally in order to leverage the relationship value. Boulding et al. (2005) highlighted the pitfalls of insufficient training on CRM systems and the associated adverse outcomes, resulting from the employees’ incompetence to handle CRM systems efficiently and poor customer service due to bad time management. Moreover, it has been found that a successful CRM initiative requires a reward system that will motivate employees to put more emphasis on customer satisfaction and support relationships in the long run (Chen and Wang, 2006).

CRM human resources have been found to have a significant effect on CRM processes linked to customer life-cycle stages. Keramati et al. (2010) mapped CRM processes to customer life-cycle and proved that they are significantly affected by infrastructural CRM resources, which include human resources. Becker et al. (2009) observed that internal support to CRM involved employees affects positively the company’s performance during the retention stage of customer life-cycle. Moreover, Park and Kim (2003) demonstrated that more advanced internal support to CRM involved employees can ensure better customer service.

2.4.2 Organizational resources

A successful CRM system deployment requires from organizations not only to base their processes on customers’ expectations but also to adjust their attitude towards changes in inner working, roles and responsibilities and more generally their structure (Sin et al. 2005). As Araya et al. (2007) stressed out, organizational resources, including culture, structure, knowledge management and support of the company’s top management, are key factors in introducing successfully IT systems in the workplace. Becker et al. (2009) found that successful CRM system implementation requires the top management’s support, especially at the project initiation stage, while teamwork and collaboration between channels play a vital role so that employees meet customer’s expectations. Overall, the impact of organizational resources on business performance is a popular subject among researchers examining CRM systems from a managerial perspective (e.g. Chen and Popovich, 2003; Garrido-Moreno and Padilla-Meléndez, 2011; Keramati et al., 2010; Reinartz et al., 2004). In the banking sector, the work of by Kim et al. (2010) highlighted the significant effect of organizational resources on CRM processes.

2.4.3 Technological resources

Examining CRM systems from a technological perspective, resources are allocated to three consecutively executed groups of applications, namely data collection, intelligence generation and intelligence dissemination (Zablah et al., 2004). Data collection applications support the company in customer data acquisition, which is stored in the company’s data warehouse and shared internally. The collected customer data are then transformed by intelligence generation applications into customer knowledge. Finally, intelligence dissemination applications support the flow of this knowledge throughout the organization.

CRM systems typically provide analytical, collaborative and operational services to a company (Trepper, 2000). In analytical CRM, the customer data stored in the data warehouse are analyzed in order to retrieve valuable present and historic information and possible hidden patterns. Collaborative CRM supports the seamless sharing of
customer data and knowledge through all the possible contact channels, thus providing for the efficient communication between the company’s employees. Operational CRM supports the company in its daily contacts with its customers by automating marketing campaigns and providing the company’s employees with all the data required when communicating with customers.

The study of Reinartz et al. (2004), addressed, among other relationships, the effects of CRM technology on CRM performance. They found that CRM technology does not play a moderator role in the relationship between CRM procedures and economic performance. Park and Kim (2003) developed a framework to explain the IT dimension and its role in customer life-cycle, consisting of three phases namely customer acquisition, retention and expansion. At the acquisition stage, employees collect the required data through contact channels and enhance the company database. At the retention stage, the company builds the relationship with its customers, based on satisfaction creation by offering high value customized products and services. At the expansion stage, the customer plays a vital role in extending the company’s customer base (e.g. by word-of-mouth). The authors came to the conclusion that the development of a customer information system must be a top priority for the company and that investments in gathering customer data pay back by enabling employees to administer customer life-cycle effectively and efficiently. Similar findings have been reported by research conducted in the banking sector (e.g. Kim et al., 2010; Reinartz et al., 2004). However, as Das et al. (2009) pointed out, CRM success is uncertain in case the bank follows only the technological perspective ignoring the required alignment of human and organizational resources.

3. Research methodology

3.1. Research model and instrument

The conceptual framework of the present study is illustrated in figure 1.

Figure 1. Research conceptual framework

Field research was conducted by utilizing a questionnaire, which was developed by adopting relative constructs reported in literature. Each item was assessed by a seven-point Likert-type scale, indicating the respondent’s strength of agreement and ranging from 1=“I strongly disagree” to 7=“I strongly agree”. The questionnaire comprised the following 3 distinct sections:

1. **Customer demographics.** Questions in this section aimed to capture the gender, age, educational level, position at work and monthly income of respondents.
2. **CRM resources.** Human and organizational resources were adopted from the work of Keramati et al. (2010), while the measurement of technological resources was based on the scale of Sin et al. (2005):
3. **Human resources** (7 items): Technical skills, experience, expertise, training and employees’ behaviour are the key elements that measure this factor.

3. **Organizational resources** (7 items): This factor aims to measure the customer orientation strategy, bank’s philosophy, top executives’ commitment, employee rewards and incentives and the channels’ cooperation.

3. **Technological resources** (5 items): The attributes contributing to this factor’s measurement are the availability of CRM software and hardware systems, technical support, completeness of database and availability of data across contact channels.

3. **CRM processes**. This section aimed to measure CRM process as they are linked to customer life-cycle stages. The scale of Reinartz et al. (2004), which was utilized in the B2C markets, was adopted for that purpose. It includes the following stages:

   - **Initiation** (6 items). The processes in this stage include the identification of valuable customers, customer evaluation, the use of external sources for identifying valuable customers, the cost evaluation for re-establishing a relationship with a lost or inactive customer.
   - **Acquisition** (4 items). Processes oriented towards the attraction and targeting of customers, the following of value offers made to prospects and the measurement of investments made for customer acquisition.
   - **Regain** (4 items). Processes related to the effort made to get back lost or inactive customers.
   - **Maintenance** (4 items). The processes in this stage focus on the knowledge, evaluation and cost estimation of current customers and the tracking of customers’ progress across the stages of lifecycle.
   - **Retention** (7 items). Two-way communication, customer loyalty or retention programs, information sharing, product and service customization, addressing customer’s expectations and strengthening relationships with high-value customers are the focus of the processes in this stage.
   - **Expansion** (3 items). These processes focus on cross-selling, up-selling as well as incentives given to valuable customers with the aim to intensify business.
   - **Exit** (3 items). The processes in this stage centre at identifying non-profitable, lower value or problematic customers, discontinuing relationships with them actively or passively and offering disincentives to them for terminating their relationships.

3.2. **Sampling**

The case bank chosen is one of the leading organizations in the Greek banking sector, which has a dynamic presence in 6 more countries. In 2007, the bank decided to follow an RM strategy and a CRM system was deployed to support this strategy. Today, the CRM system is utilized to support a growing array of applications, including internet, mobile and telephone banking and the development of new customized products and services. The field research target sample consisted of all the employees who work in any of the 10 bank branches located in the region of Thessaly and are involved with any aspect of the CRM system.

The questionnaire was initially pilot-tested by 5 employees, all of which were approached by direct contact. The results of the pilot test proved to be very satisfactory, since all respondents found the questionnaire items understandable. Minor rewording recommendations, made by the pilot test participants, were incorporated into the questionnaire’s final version. Furthermore, there was no respondent who hesitated to answer any question for any reason.

The questionnaire was sent by email to all 114 bank employees whose job profile involves the use of the CRM system. The resulting sample comprised 102 correctly answered questionnaires, thus leading to a response rate of 89.47% of the target population.
4. Data analysis and results

Inter-item analysis was used to verify the CRM resources and processes scales for internal consistency and reliability. More specifically, the Cronbach’s alpha (Cronbach, 1960) was calculated and it was found to range between 0.819 and 0.912 (table 1). Thus, all sub-scales exhibited values over the 0.7 reliability level, which is the minimum level for acceptance (Nunnally, 1967).

Table 1. Internal reliability analysis of scales

<table>
<thead>
<tr>
<th>SCALES</th>
<th>CRONBACH’S ALPHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM Resources</td>
<td></td>
</tr>
<tr>
<td>Human</td>
<td>0.891</td>
</tr>
<tr>
<td>Organizational</td>
<td>0.819</td>
</tr>
<tr>
<td>Technological</td>
<td>0.859</td>
</tr>
<tr>
<td>CRM Processes</td>
<td></td>
</tr>
<tr>
<td>Initiation</td>
<td>0.912</td>
</tr>
<tr>
<td>Acquisition</td>
<td>0.866</td>
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<tr>
<td>Regain</td>
<td>0.881</td>
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<tr>
<td>Maintenance</td>
<td>0.906</td>
</tr>
<tr>
<td>Retention</td>
<td>0.903</td>
</tr>
<tr>
<td>Expansion</td>
<td>0.899</td>
</tr>
<tr>
<td>Exit</td>
<td>0.874</td>
</tr>
</tbody>
</table>

In order to determine the extent to which each CRM resource type contributes to each of the customer life-cycle stages conceptualizing the CRM processes, 7 multiple regression analyses were performed (table 2).

Table 2. Linear regression results

<table>
<thead>
<tr>
<th>INDEPENDENT</th>
<th>Initiation</th>
<th>Acquisition</th>
<th>Regain</th>
<th>Maintenance</th>
<th>Retention</th>
<th>Expansion</th>
<th>Exit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef</td>
<td>Beta</td>
<td>Sig</td>
<td>Coef</td>
<td>Beta</td>
<td>Sig</td>
<td>Coef</td>
</tr>
<tr>
<td>Gender</td>
<td>-.009</td>
<td>.911</td>
<td></td>
<td>.023</td>
<td>.772</td>
<td></td>
<td>.048</td>
</tr>
<tr>
<td>Age</td>
<td>.033</td>
<td>.717</td>
<td></td>
<td>-.103</td>
<td>.251</td>
<td></td>
<td>-.029</td>
</tr>
<tr>
<td>Education</td>
<td>.174</td>
<td>.034</td>
<td></td>
<td>.113</td>
<td>.154</td>
<td></td>
<td>-.014</td>
</tr>
<tr>
<td>Job position</td>
<td>.074</td>
<td>.377</td>
<td></td>
<td>.075</td>
<td>.362</td>
<td></td>
<td>.019</td>
</tr>
<tr>
<td>Income</td>
<td>-.407</td>
<td>.000</td>
<td></td>
<td>-.149</td>
<td>.107</td>
<td></td>
<td>-.024</td>
</tr>
<tr>
<td>Human Res.</td>
<td>.34</td>
<td>.007</td>
<td></td>
<td>.318</td>
<td>.009</td>
<td></td>
<td>.263</td>
</tr>
<tr>
<td>Organ.Res.</td>
<td>.381</td>
<td>.001</td>
<td></td>
<td>.431</td>
<td>.000</td>
<td></td>
<td>.452</td>
</tr>
<tr>
<td>Technol.Res.</td>
<td>.049</td>
<td>.634</td>
<td></td>
<td>.065</td>
<td>.514</td>
<td></td>
<td>.134</td>
</tr>
</tbody>
</table>

*Adjusted R²: 0.393  0.423  0.493  0.462  0.598  0.501  0.174

Bold: Coefficient is significant at level 0.01
Italic: Coefficient is significant at level 0.05
Underline: Coefficient is significant at level 0.1

As in can been seen in table 2, the effects of CRM processes on 6 of the customer life-cycle stages conceptualizing the CRM processes were significant, since the total variance explained ranged between 39.3 and 59.8%. The only exception was the variance explained for the exit stage, whose value was 17.4%.
The results indicate that CRM organizational resources are the most vital, since they have a strong positive effect on the processes of all customer life-cycle stages. Moreover, human resources were proved to have a significant positive effect on the early (initiation, acquisition, regain) and middle (maintenance, retention) customer life-cycle stages, while their impact on the late stages (expansion, exit) is minimal. Technological resources were shown to have a small influence on the middle customer life-cycle stages. Finally, an interesting finding is the negative impact of the employees’ monthly income on the processes related with the initiation, maintenance and exit stages.

5. Conclusions

This study aimed to explore the influence of human, organizational and technological CRM resources on CRM processes across the customer life-cycle, in the context of the Greek banking sector. The statistical results showed that the 3 CRM resources types examined do not contribute evenly to each of the 7 stages of the chosen customer life-cycle model.

Organizational resources exerted the strongest positive effect on the processes of all stages, except the last exit stage, where the influence was at a moderate level. This shows that viewing CRM not only as a customer contact facilitating technology but as a strategy and aligning the company’s structure and operations with this strategy, pays back when it comes to the development and nurturing of customer relationships. This approach can provide the company with a competitive advantage that cannot be easily imitated by competition.

Human resources were also proved to have a significant and positive effect on CRM processes of all early and middle customer life-cycle stages. This means that a company which focuses on the continuous improvement of its employees work environment, technical skills, expertise and behavior during customer contacts can excel in the implementation of its customer acquisition and retention strategies.

Technological resources, in contrast with the other 2 resource types examined, did not exert a strong or moderate impact on any customer life-cycle stage, since they were only proved to have a weak positive impact on the maintenance and retention stages. This could be attributed to the fact that the case bank has been using its CRM system for quite some time and therefore issues relevant to software and hardware systems, technical support, completeness of database and availability of data across contact channels have been resolved to a great extent. Moreover, it is likely that since CRM technology has been introduced approximately 2 decades ago and today it has reached maturity, employees consider it as an easily acquired commodity and therefore undermine its importance.

The results discussed above are in accordance with relative research reported in literature. Keramati et al. (2010) highlighted the significant positive effect of human and organizational resources on CRM processes. In a similar line, Reinartz et al. (2004) and Becker et al. (2009) found that CRM organizational resources have a significant positive impact on the CRM processes corresponding to customer life-cycle stages. Greve and Albers (2006) emphasized the influence of organizational alignment and top management commitment on the retention stage, while Garrido-Moreno and Padilla-Meléndez (2011) confirmed the positive effect of organizational variables on CRM success. Finally, Becker et al. (2009) found that technological resources have a low but positive impact on CRM processes.

Acknowledgements

This research has been co-financed by the European Union (European Social Fund-ESF) and Greek national funds through the Operational Program “Education and Lifelong Learning” of the National Strategic Reference Framework (NSRF) – Research Funding Program: ARCHIMEDES III. Investing in knowledge society through the European Social Fund References.

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