A Study to Measure the Impact of Customer Relationship Management under Organisational Ability, Technology, Knowledge Management, Customer Orientation and Customers

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In today's world, Customer Relationship Management is an increasingly critical business growth activity. It's used to manage a company's interaction with its future and existing customers. The role of the CRM approach is to evaluate data on a company's past. It focuses on a way of keeping customers and thus helps sales increase. This improves the business relationship between the company and its customers. The purpose of the present study is to evaluate how the performance of CRM is influenced by technology, organisational efficiency, customer feedback and knowledge management. We try to see how the achievement of CRM affects the performance of an organisation. In order to test the conclusions, Structural Equation Modelling was used. Results revealed that the successes of CRM have been significantly affected by information technology use, the emphasis on the consumer, corporate capability and the management of customer awareness. Eventually, the implications and outcomes of the analysis and future research directions and limitations will be explored.

Keywords: Customer relationship management, Ability, Technology, Knowledge, Orientation.
Introduction

The management of customer relations (CRM), the technology field of modern commercialisation, is based on the Relationship Marketing (RM) theory (Rahimi & Kozak, 2017). In the 1990s, in the business field, the CRM concept prevailed. As a study, the research community and world business interests have been heavily focused and stimulated. This strategy is focused on the need for a modern market climate to improve customer interactions (Soltani & Navimipour, 2016). Because everything and all is linked to the 21st century, the Internet becomes a big force for society and a new movement becomes created (Zareie & Navimipour, 2016). It also enables businesses to monitor their online activities, results and customise Internet technology costs, interactions, services and goods. Companies must recognise the needs of customers to provide information, services and products to their customers over the Internet (N. J. Jafari Navimipour & Soltani, 2016). As the business climate has shifted from product focus to consumer focus, it is viewed as contributing to successful and sustainable sales growth through improving relationships with customers. Research has shown that customer-to-contract relations between the service provider and customer have had a positive effect (Sivaraks, Krairit, & Tang, 2011). CRM allows an organisation to better grasp the impact of its customers and to invest aggressively in these desires and businesses as a core business strategy (H.-S. Kim & Kim, 2009). CRM focuses on the enhancement, maintenance and development of long-term customer associations and is based on collection of information before taking decisions (Khosravifar, Bentahar, Gomrokchi, & Alam, 2012).

Recent work continues to provide customer-related outcomes in market performance (Kaplan & Norton, 1996). While CRM technology is backed conceptually and with significant funding evidence, empirical research has been carried out to investigate the relationship between the performance of CRM and technology with unclear outcomes, and recent studies have shown that market growth, growth (profitability and customer satisfaction) has improved., etc. (Bull, 2003; Chang et al., 2010).

The current study aims to make sure that the success of CRM is informed by company awareness and customer orientation, and is business and technology related. We seek to explain how a CRM's success affects an organisation’s efficiency. Understanding the effects and the use of CRM technology shows how businesses can boost a CRM’s efficiency. Here are the objectives of this paper:

• CRM's effectiveness and organisational efficiency factors are illustrated in a system and model.
• The effect on CRM efficiency is calculated by the attention of the customer, the company and the technology.
• The impact of CRM on organisational performance is evaluated. In the next section we discuss the related work and background. Section Three provides the theoretical basis for the hypotheses and the analysis model. Section Four, Methodology for Research, provides an overview of measures and methods for research. Section Five presents the results and data analysis. Finally, Six contains the review and conclusion, with suggestions for future research.

Literature Review

Organisations need to shift from a company strategy based on production to a strategy of customer concentration. To ensure long-term competitiveness and to be competitive in today's commercial environment, all companies should take into account consumer interest and retain the continuous necessity of consumer trust as well as old customers (H.-S. Kim & Kim, 2009). The most critical and cost-effective method for consumer management is the CRM. In recent years, CRM has therefore received a great deal of attention in various sectors, including IT and marketing. In the view of corporations, the contact with customers is considered a profitable activity for businesses and customers (Plakoyiannaki, 2005).

The model suggested for their analysis relates to social CRM adoption and success to technical, organisational, environmental and process variables. Results revealed that the key drivers are top management support, employee awareness, IT / IS, cost, relative advantage, flexibility, customer pressure and competitive pressure. Finally, their study confirms the clear correlation between social CRM and SME success.

To order to understand consumer orientations and organisation's efficiency differences, they incorporated similar capacity to IT products such as CRM based upon resources theory. The outcome of this test was a lack of customer orientation in terms of financial performance but also indirect financial influence of service quality, mediation variables and CRM efficiency. The findings show that the quality of service and CRM capabilities of the enterprise are very important variables mediating between performance and consumer orientation.

Lockett and Garcia-Morales (2014) explored how CRM is effective with a emphasis on the role of mediator of organisational interaction and management of information. The research models were developed and tested to investigate the process by which CRM infrastructure is being converted into organisational efficiency and also the resource-based insight (RBV) and knowledge-based insight (KBV) enterprises. The results of 125 sample hotels in foreign countries were the complete implementation by the knowledge and organisational process. They have shown that the main role of organisational involvement acts as the effective mediator and has the greatest effect on the CRM performance. The understanding of general managers is also the basis for measuring variables, and is therefore highly subjective. This
study is also a transversal piece that emphasises how variables evolve over time in our analysis and by which longitudinal studies should be done in the future.

Chuang and Lin (2013) researched how businesses can boost the service of their customers through a combination of customer focus and infrastructure capacities. 116 financial service companies in Taiwan have indicated the quality impact on the efficiency of their businesses begins with customer orientation and network capacity and the complementarity between these factors has a positive effect on customer approval. Results showed that the quality of customer knowledge positively affects the efficiency of customer relationships and thus increases the performance of businesses.

Chang et al., (2010) explored the role of CRM management technology in the company's success. This study helps the manager understand what to do to upgrade CRM efficiency. They have demonstrated the value of marketing ability to turn CRM technology into business efficiency. Management will also establish a customer-centred management structure and organisational culture to effectively use CRM technology.

The role of technology assimilation, CRM knowledge centres and driving performance was investigated by Saini, Grewal and Johnson (2008). They concluded that the success of CRM by organisations using the technology of CRM is essential to two types of wisdom stores, such as technology and relational information stores. The results show the superior success of CRM by higher levels of assimilation, technology and partnership know-how stores. The report offers advice on top management and moderating factors for the assimilation of CRM technology.

**Research Model and Hypotheses**

In this section a new model is obtainable to identify the factors influencing the organisation’s performance. The model is focused upon the CRM performance guided by customer feedback, organising ability, technology and customer knowledge management. Picture 1 shows the five hypotheses research models listed in this section. Each hypothesis is represented by a number and a letter H. Plus signs suggest positive relationships and arrows display hypothesised relations. Data recovery and development procedures for instruments are described in detail in this section.

**Organisational Capability**

CRM's aspect is the customer orientation which businesses have proven highly instrumental in developing good customer ties, as it imbues the corporate employees with a customer-oriented culture and comportment, thus motivating them in a positive way to perform
(Nelson, 1991). The skill includes the ability to handle changes in IT, productivity and an appreciation of the design process and the quality of the product to increase competitiveness, the ability to produce effectively (Sirbel, 2012).

**Customer Orientation**

Consumer relationships to the core marketing theory are established through the understanding of customer needs and orientation. Feedback from consumers is a behavioural and cultural phenomenon. It refers to the extent that customers' needs for building relationships are met and understood by companies that last for a long time. In addition, customer focus is very important and the independent principle of competition to sustain and build long-term relationships between company and customers (Harris, Mowen, & Brown, 2005). CRM's aspect is the customer orientation which businesses have proven highly instrumental in developing good customer ties as it imbues the corporate employees with a customer-oriented culture and comportment, thus motivating them in a positive way to perform (Yilmaz, Alpkan, & Ergun, 2005).

**Customer Relationship Management**

The Economist Intelligence Unit reported more than eleven different metrics of CRM (2007) success with highest sales (30%), customer retention (43%) and consumer satisfaction (49%). Companies appear, depending on their goals, to follow CRM acts and meanings. In other words, failure or CRM success also depends on the company in which failure and performance of CRM are hard to generalise in all companies. For example, if a company's goal is to satisfy the customer, the company's ability to retain customers is the key to CRM's success. Alternatively, the capacity to produce income is the determination of CRM's performance if income is generated in a specific amount. Because the same CRM system can be used by multiple organisations in order to accomplish specific goals, CRM programs are not generally exclusive to businesses and companies should assign CRM based upon their work and usage, to recognise forms in which CRM is effective. The CRM system may fail tactically, strategically, or both simultaneously, as found by Payne and Frow (2005). This is why the effectiveness of CRM is characterised if businesses match CRM initiative with the strategic direction of the company. This alignment enables customer relationship management to achieve objectives with short and long perspectives. This concept allows ideas relevant to the performance of CRM to be implemented on the strategic course of the organisation.
Customer Knowledge

Insight, expertise and interpretation is called knowledge, which provides a framework in which information can be collected, produced, analysed and used. Many researchers describe customer sensitivity by looking at the relationship between data and consumer data. Awareness can be divided into explicit knowledge and implicit learning, considered to be coupled with reflection, meaning, perception and experience. The Customer Knowledge Management systemically explicitly manages essential knowledge and related processes for delivery, creation, usage, organisation and use of information and knowledge management. Customer knowledge management also involves customer knowledge use and management. Customer knowledge involved in interactions with customers can typically be split into three categories of customer and customer knowledge information (J. Wu, Guo, & Shi, 2013).

Technology

Technology affects our way of doing business and our way of working in our lives. (Sinha & Mukherjee, 2016). Over the past century, information and communication technology and the demands of large computer and educational institutions have increased unimaginably (Pan & Yuan, 2016). IT is rapidly growing, leading to companies investing in cutting-edge technology. Radical business process re-design and advancements in corporate IT efficiency has been acknowledged (Museli & Navimipour, 2018). IT facilitates market transformation through the connection and alteration of working practice with internal stakeholders and with new approaches, suppliers and customers. CRM systems combine technical innovation with individual customers' desire to provide service and value for themselves, respond to individual messages effectively and promptly, interpret customer behaviour, evaluate, collect customer data, and create predictive models.

Firms Performance

CRM seeks to increase business productivity, enhance customer satisfaction, deliver diverse services and goods, meet company requirements and preserve loyalty to customers (Kandell, 2000). CRM can improve customer satisfaction and consumer engagement. The success of a product increases in effect with customer loyalty and quality (Chung et al., 2012). The current research hypotheses are based on the above discussions:

H1: Customer orientation has a positive relationship with CRM's success.
H2: Organisational capacity is strongly related to CRM performance.
H3: Information technology has a positive bearing on CRM's success.
H4: Customer information management is strongly related to CRM's performance.
H5: CRM's success is positively related to organisational performance.
Research Methodology

This research explores how CRM performance can improve the organisation’s efficiency. It is therefore necessary to identify the factors that impact the company's performance. The main purpose of the current research is to analyse the positive effect on the efficiency of the organisation. In this paper, we propose a model of the performance of the business with respect to value CRM. The rest of this section describes the compilation of data, samples and measurements.

Measurements

A questionnaire was generated to evaluate elements of the pattern. The questionnaires were revised with the aid of experts at CRM (including scholars and practitioners). A that and reliable method was used to test the Questionnaire’s validity. It evaluated the questionnaires and then distributed them to the statistical sample. We used the software package SMART-PLS (Partial Least Squares) 2.0 and the SPSS 22 for statistical analysis on the questionnaires. The Likert scale was used in all questionnaire items, with 1 being totally unanimous, 3 being either unanimous or unanimous, with utter unanimity. The questionnaire is now available in the Jordan Tax Administration. PLS avoids many of the drawbacks of covariances, such as large sample and multivariate normality, which are underlying structural equation modelling techniques (SEM). The PLS, reflective and shaping structures, can also be evaluated together in the model. For this analysis, the data processing is done through PLS and not the other statistical methods that provide formative structures.

Data Collection and Samples

Jordan Tax Administration employees are the objectives of this study. The total volume of the sample was 260 people. According to the Morgan table the target population was chosen. 155 cases have therefore been chosen randomly. 155 questionnaires have been returned, five of them not available (not completed). For analysis, 150 questionnaires have been left. 150 is the sample size that is more than appropriate to the PLS estimation procedures (Hwang, 2009).

Data Processing and Results

In model studies, partial less squares (PLS) are used as highly complex predictive models and PLS is often used to analyse complex models and connections (Chin, 1998). PLS is also possible to evaluate structural models and to measure latent multi-item structures (Sun & Mouakket, 2015). Empirical data analysis took place in two phases, since PLS analysis is performed using Smart-PLS software 2.0. In the first phase, the measuring model is checked
for psychometrical properties of all scales. The second phase is the structural model assessment for hypothesis tests. The following hypotheses are developed: testing, structural model, and measuring model.

Measurement Model

We have carried out tests to determine whether the respective variables can be measured by the indicators of the factor (as summarised in Table 1). Variance extraction and composite durability checks (CR) and measurements average (Zhao & Cao 2015) measure convergent validity. The AVE is > 0.5 and the CR is > 0.7 in our study. The convergent validity of sample data is adequate for further study in accordance with Chin and Dibbern (2010).

Table 1: Reliability and Validity of the Converging Measuring Model

<table>
<thead>
<tr>
<th></th>
<th>AVE</th>
<th>Composite reliability</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation of the customer</td>
<td>0.92</td>
<td>0.94</td>
<td>0.90</td>
</tr>
<tr>
<td>Capability of organisation</td>
<td>0.63</td>
<td>0.83</td>
<td>0.82</td>
</tr>
<tr>
<td>IT</td>
<td>0.54</td>
<td>0.77</td>
<td>0.76</td>
</tr>
<tr>
<td>Management of Customer knowledge</td>
<td>0.57</td>
<td>0.86</td>
<td>0.81</td>
</tr>
<tr>
<td>Success of CRM</td>
<td>0.52</td>
<td>0.82</td>
<td>0.77</td>
</tr>
<tr>
<td>Firms performance</td>
<td>0.54</td>
<td>0.82</td>
<td>0.78</td>
</tr>
</tbody>
</table>

The second validity test is for prejudice. The square root of the AVE numbers is determined for the respective structures. These should be higher than the correlation values of all latent variables (Fornell & Larcker, 1981). The root of each pair of structures and the AVE value of each building are calculated in Table 2. This knowledge indicates the presence of differences between constructions as AVE values are higher than the calculated squared correlations.

Table 2: Discriminatory Validity of the Model

<table>
<thead>
<tr>
<th></th>
<th>Orientation of the customer</th>
<th>Capability of organisation</th>
<th>IT</th>
<th>Management of Customer knowledge</th>
<th>Success of CRM</th>
<th>Firms performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation of the customer</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability of organisation</td>
<td>0.33</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>0.70</td>
<td>0.36</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of</td>
<td>0.48</td>
<td>0.62</td>
<td>0.50</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Red Index

The average index of redundancy, calculated under: (1) \( \text{Red}_j = \text{Communality}_j \) within \( R^2 \) \( \text{Communality}_j = \text{loadings}^2 \), shall also provide for a general quality measure of structural models.

So:

- \( \text{Red}_{CRM\ Success} = \text{Com}_{CRM\ Success} \times R^2 = 0.51 \times 0.89 = 0.45 \)
- \( \text{Red}_{Firms\ Performance} = \text{COM}_{Firms\ Performance} \times R^2 = 0.56 \times 0.65 = 0.36 \)

(3) \( \overline{\text{Red}} = \frac{1}{n} \sum_j \text{Red}_j \overline{\text{Red}} = \text{Red}_{CRM\ Success} + \text{Red}_{Firms\ Performance} = 0.45 + 0.36 = 0.405 \)

In the model, the total number of endogenous latent variables is equal to \( n \). Because redundancy may be used to test structural equation modelling; the structural model fits into a study more effectively if the redundancy is high.

### Goodness of Fit (GoF) of the Model

Just one measure of fitness is expressed by PLS-SEM (Tenenhaus & Vinzi 2005). In this form, we can estimate GoF:(4) \( \text{GoF} = \text{AVE}^{-1} \text{total } R^2 \text{GoF}(0.58) \) as follows:(4) \( \text{GoF} = \text{AVE}=0.67 \) by calculating an average R square and geometric average for an endogenous construct.

According to Wetzels, Odekerken-Schröder and Van Oppen (2009), the baseline values 0.1, 0.25 and 0.36 are low, medium and strong. According to Table 3, the GoF of this study was 0.67 which is considered high, indicating in effect the adequacy of the validity of the model.

<table>
<thead>
<tr>
<th></th>
<th>Orientation of the customer</th>
<th>Capability of organisation</th>
<th>IT</th>
<th>Management of Customer knowledge</th>
<th>Success of CRM</th>
<th>Firms performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer knowledge</td>
<td>0.73</td>
<td>0.48</td>
<td>0.71</td>
<td>0.62</td>
<td>0.71</td>
<td></td>
</tr>
<tr>
<td>Success of CRM</td>
<td>0.63</td>
<td>0.45</td>
<td>0.63</td>
<td>0.52</td>
<td>0.81</td>
<td>0.74</td>
</tr>
<tr>
<td>Firms performance</td>
<td>0.63</td>
<td>0.45</td>
<td>0.63</td>
<td>0.52</td>
<td>0.81</td>
<td>0.74</td>
</tr>
</tbody>
</table>
Table 3: Goodness of Fit (GoF)

<table>
<thead>
<tr>
<th>Construct</th>
<th>R²</th>
<th>Average variance extracted</th>
<th>Goodness of fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation of the customer</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability of organisation</td>
<td>0.50</td>
<td></td>
<td></td>
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<td>IT</td>
<td>0.57</td>
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<td>0.89</td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td>Firms performance</td>
<td>0.65</td>
<td>0.57</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Validation of the Structural Model

Endogenous constructions are indicative of variance. A structure model describes the relationship of the independent and dependent variables with the significance and sign of the path coefficients. The determinative coefficient value (R-squared) is a predictive power measure of the structural model. The principal objective of PLS-SEM is to optimise the variance as shown by the exogenous variables of an endogenous variable. The accepted R² values range from 0.67 to 0.19 (Chin, 1998). The model explains overall 0.65% of the company's performance and a variance of 0.89% of the CRM's success. The statistical meaning of each path (the connection between the two given buildings) was discovered through the bootstrapping technique, with 600 sub-samples. The bootstrapping algorithm repeats itself until the convergence is reached via the research model. The verification of the hypothesis was conducted on the basis of the direction coefficients. The next step is to analyse the hypotheses suggested by Bootstrapping and Smart PLS Algorithm after defining and checking the validity and reliability of the model. This displays the obtained data. The structural model route has been looked at. Every direction is theoretical. Measuring the statistical significance, size and sign of the Path Coefficients (β) from the dependent variable to each constant verified the hypothesis. Unless the dependent variable is greatly affected by a latent forecast variable, then the direction coefficient is high. The significance of the path coefficients (β1 to β5) was investigated by calculating the significance of the t value for each path coefficient. It was done using the bootstrapping feature of Smart PLS 2.0. Table 4 shows a summary of the respective t-values and path performance.
Table 4: Results of the PLS Structural Model

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>β</th>
<th>T-value</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Orientation of the customer</td>
<td>0.54</td>
<td>7.02***</td>
<td>Yes</td>
</tr>
<tr>
<td>H2</td>
<td>Capability of organisation</td>
<td>0.24</td>
<td>6.24***</td>
<td>Yes</td>
</tr>
<tr>
<td>H3</td>
<td>IT</td>
<td>0.30</td>
<td>3.48***</td>
<td>Yes</td>
</tr>
<tr>
<td>H4</td>
<td>Management of Customer knowledge</td>
<td>0.18</td>
<td>3.28***</td>
<td>Yes</td>
</tr>
<tr>
<td>H5</td>
<td>Success of CRM</td>
<td>0.81</td>
<td>76.03***</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*** p < 0.001.

Discussions and Conclusion

The purpose of this study was to determine the effect of CRM on the organisation’s results. According to the company's resource theory, the success of CRM is considered one of the most valuable tools in that CRM is able to improve its performance. The data from this study have been collected through questionnaire surveys administered by Jordan's Tax Administration workers in Jordan. PLS-SEM has been used to evaluate the hypothesised pattern. The results of this study and the successful progress of CRM are expected to be positive. CRM's success is to mediate the link between the organisation’s efficiency, customer knowledge management, information technology, organisational capacity, and customer guidance. This study presents a model of critical factors for CRM's success and a comprehensive CRM framework. The theoretical implications of this work are as follows. Statistical findings have shown support for the five hypotheses.

As Table 4 shows, the data gathered from the path code and the t-T-Test study showed that consumer orientation (β=0.55, t=7.01, p<0.001), which supports hypothesis 1, positively and considerably affects the performance of the CRM. The results of the CRM have also been successful and important in terms of organisational efficiency (β = 0.23, t = 6.26, p < 0.001). Efficiency and complementarity of the IT system (β = 0.30) is confirmed by CRM (t = 3.49, p < 0.001) Supporting H1, H2 and H3. Therefore, our findings demonstrate that the overall performance and success of the CRM company are significantly affected by technology, organisational capacity and customer orientation. Hypothesis 4 is endorsed, which indicates that CRM performance and customer information management are positively inter-related (β
The CRM output has also been optimistic and important in terms of business results ($\beta=0.80$, $t=76.04$, $p<0.001$). Therefore, H4 and H5 are supported. This important issue can be tackled using a research model to investigate factors that influence the performance of companies. The contributions of this paper are described below.

Finally, this research hopes to contribute to both academia and industry by strengthening awareness of the successful application of CRM. Furthermore, one of the main factors for CRM success has been identified as the interplay between customer orientation and corporate ability, information technology, and customer knowledge management in terms of this study's management impacts. All variables directly impact the efficiency of the enterprise.
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