Validating A Proposed CRM Implementation Framework For The Mauritian Hotel Industry

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Abstract

This article validates a proposed Customer Relationship Management conceptual framework for the Mauritian Hotel Industry based on identified critical success factors. The research provided insights on how different factors need to be considered to ensure a smooth implementation of a Customer Relationship Management strategy and to address the causes of Customer Relationship Management project failures. Extant reviews of the literature on Customer Relationship Management theoretical frameworks, Customer Relationship Management causes of failure, and critical success factors for Customer Relationship Management success were conducted and subsequently 33 items were identified. An exploratory factor analysis was done to validate the results of the survey followed by which a confirmatory factor analysis was conducted to confirm the appropriateness of the proposed theoretical model, followed by a Structural Equation Model analysis conducted to validate the adequacy of the proposed model. The Structural Equation Model analysis confirmed the appropriateness of the proposed framework and confirmed the exactitude of each Customer Relationship Management success factor included in the framework. The design of the new proposed conceptual framework intends to provide a novel approach of in-depth knowledge on how to implement Customer Relationship Management in the Mauritian Hotel Industry and acts as a guideline for hotel managers to implement CRM successfully and to increase profitability.

Keywords: Customer Relationship Management, critical success factors, management commitment, technology, strategy

Introduction

Recently hotel guests or travellers’ needs have changed. To gain a competitive edge and meet the changing customer needs, hotels tend to adopt a distinguished and customer-oriented marketing strategies. Customer Relationship Management (CRM) is one particular strategy that has been adopted to manage relationships with customers more effectively by accurately analyzing consumer data using various information technologies (Buttle, 1996; Ngai, 2005). Customer relationship management has a significant effect on customer satisfaction, which in turn can lead to better relationships, greater customer loyalty, and retention (Hassan, Nawaz, Lashari, Zafar, 2015). In the hotel industry, CRM becomes a strategic imperative for attracting and increasing guests’ patronage (Sigala, 2005). The hotel industry is having to deal with much more competition which is compelling hotels to differentiate their customers. Since the hotels can gather and integrate substantial information about their guests, CRM is viewed as an
opportunity for the hotels to make use of this information to build on the relationship for improving customers’ satisfaction, and subsequently, in increasing the hotels’ profitability (Aziah & Minai, 2009). CRM is considered to be amid the best strategies and practices for hotels to become more performant and survive (Aziah et al., 2009; Sigala, 2005; Wu and Lu, 2012). Mohamed and Rashid (2012) and Al-Azzam (2016), have both observed a positive and significant relationship between CRM and hotel performance.

Researchers in the hotel service sector have noticed a paradigm shift from the traditional view of guests as rational decision makers to a more integrated view of being more experiential and rational (Ugwuanyi, Ehimen & Uduji, 2021). Many luxury hotels in Mauritius have embraced the CRM strategy to ensure their survival when faced with global competition. Conceptually, CRM has been widely adopted by many businesses but in practice, CRM has proved to be a slow process. The outcomes of CRM implementation are disappointing. The CRM strategy execution process has fallen short of the expectations. Successful implementation of CRM depends on several factors such as the fit between a hotel’s CRM strategy and its broader marketing strategy. The intra-organizational and inter-organizational coordination among different departments/units is also another factor that is determinant in CRM success. The motivation behind this study is to assist hotels in the implementation of CRM successfully within a holistic overview.

### Literature review

#### Defining CRM and its implementation

The definition of CRM has been brought up by an increasing number of researchers and practitioners from the fields of management and marketing. CRM is considered as a marketing approach that works through networks, relationships, and interactions (Gummesson, 1999; Parvatiyar & Sheth, 2001) and is frequently aided by Information Technology (IT) which allows more interaction between an organization and its customers. Being a highly advertised concept, CRM has earned much popularity. The development of CRM has resulted in the emergence of richer definitions, emphasizing the goals, logistics, and complex character of CRM. Effective management of customer relationships has caused CRM to derive from business processes including relationship marketing and the increased emphasis on improved customer retention (Light, 2003). Relationship marketing underlines that customer retention affects company profitability since it is less efficient to create a new relationship with a customer than maintaining an existing relationship with an existing customer (Payne & Frow 2005). Another aspect of CRM is that it is technologically orientated. Sandoe, Corbitt & Boykin, (2001) debates that the functionality and effectiveness of CRM systems are dependent on the advancement in database technologies such as data warehousing and data mining. Data mining is a known process of exploring existing data to find underlying patterns and information (Xu, 2014).

While CRM has been explained in various ways, it is basically believed that the best way to get customers to be loyal is by establishing a relationship with them. Dowling (2002) states that CRM is a strategic concept that includes the strategic outcomes of satisfaction, loyalty, customer retention, and profitability while using technology to harness market-relevant data and direct decision-making. Considering CRM to be an IT-dependent strategic initiative, it needs a set of capabilities and resources to be successfully implemented, enabling sustained competitive advantage (Piccoli & Ives, 2005). The CRM concept has its roots in Relational Marketing and implies “the implementation of Relational Marketing using IT” (Ryals & Knox, 2001). Bearing in mind that the primary purpose of Relationship Marketing is to attract, maintain and enhance customer relationships (Berry, 1983). CRM uses technological tools and concentrates on realizing this philosophy.
CRM initiatives have become a reality through changes in technology that help companies to communicate more effectively with customers and personalize their services (Boulding, Staelin, Ehret & Johnston, 2005). Therefore, CRM might be assumed as an inter-functional business strategy that integrates various departments in the company i.e. (marketing, sales, customer service, human resources, and information technology) to make the most on the profitability of customer connections (Chen & Popovich, 2003). CRM activities must be considered from a strategic viewpoint which involves the whole organization rather than just marketing and IT. It is a known fact that Information Systems has an influence on CRM, and in support, a study conducted by Alsheikh, Aziz & Alsheikh, (2021), confirmed that electronic word of mouth (e-WOM) communication has a significant impact on guests' behavioural intentions in Saudi Arabia. Furthermore, their study demonstrated that effective CRM may be achieved through individual perceptions of credibility and quality reviews by guests and may have a huge influence on their behavioural intentions on travel and accommodation.

**Critical success factors (CSF)**
CRM, when executed properly, does provide a sustainable competitive advantage to companies which can result in greater profitability (Bohling, Bowman, LaValle, Mittal & Narayandas, 2006). That’s why, CRM success has been an area widely discussed in the literature (Nguyen, Sherif & Newby, 2007; King & Burgess, 2007). Accordingly, numerous other studies have emerged whereby the critical success factors for CRM implementation have been analysed (Chen & Chen, 2004; Chang, 2007; Mendoza, Marius, Pérez & Grimán, 2007; Salojärvi, Sainio & Tarkiainen, 2010). The main cited success factors are: “top management support, cultural and organizational change, staff commitment, knowledge management, and business-IT alignment and integration”.

A plethora of factors that will be highlighted further down determine important success elements for successfully implementing CRM in a company (Vazifehdust & Shahnavazi, 2012). Bergeron (2001) has identified critical success factors of an effective CRM strategy. CSFs are referred to as “being necessary and sufficient for success: each factor is necessary, and the set of factors are sufficient”). However, most of these studies just provide a list of CSFs, without showing the interactions between them. An increasing gap between the potential of CRM and its actual accomplishments has accelerated the need to understand the nature of the issues and to look for measures to correct the problems (Pemberton & Stonhouse, 2000).

Many studies have shown that CRM enhances value in terms of better performance (Zablah, Bellenger & Johnston, 2004; Coltman, 2007; Rahimi, 2017). Accordingly, numerous other studies have emerged whereby the critical success factors for CRM implementation have been analysed (Chen & Chen, 2004; Chang, 2007; Salojärvi, Sainio & Tarkiainen, 2010; Farhan, Abed & Ellatif, 2018). In addition, innovation in products and services are some of the important successful factors which may contribute to a sustainable CRM (Arief, Famiola, Roestan & Zakiria, 2019).

**Theoretical underpinnings**

*Top management commitment:* Many researchers believe that top management involvement is the most crucial factor to success in any CRM strategy and they must work hard to support it in a way to encourage common understanding and commitment amongst the workers in the company (Mendoza, Marius, Pérez & Grimán, 2007; Arab, Selamat, Ibrahim & Zamani, 2010). Röschmann and Ziyadullaeva (2012), also mentioned that changes must be implemented by the company employees. This involves changing both management and workers’ attitude, defining new job roles, and redesigning the company’s organizational diagram to ensure that every worker has his/her function assigned and allocated (Röschmann & Ziyadullaeva, 2012),
and that workers know how to do what they are supposed to do (Chalmeta, 2006). The right leaders should be able to present changes in a way that is accepted by the employees and other stakeholders (Galbreath & Rogers, 1999; Farhan, Abed & Ellatif, 2018). A study in Thailand confirmed that service quality was deemed to be the most important factor to retain and attract guests into their hotels. In addition, they confirmed that top management must pay closer attention to non-traditional travellers and be culturally aware of their needs (Supanun & Sornsaruht, 2019).

**Technology:** ICT has been recognized as one of the major catalyst factors for developing one-to-one experiences and implementing CRM strategies. CRM technological systems should be a key component in implementing this type of strategy (Hansotia, 2002; Mendoza et al., 2007). Information technology allows organizations to develop better relationships with customers by providing a wider view of customer behavior and creating value (Rahimi, 2017; Ramkissoon & Uysal, 2018).

**Strategy:** According to Moreno and Melendez (2011), CRM is a business strategy that establishes and develops value-creating relationships with customers. Several CRM projects failed mid-way because of companies due to the absence of a holistic and coherent CRM strategy or policy (Cuthbertson & Laine 2004; Pries & Stone, 2004). Zineldin (2005) and Zerbin, Aloini, Dulmin and Mininno, (2018) stated that firms must implement strategies that can face any changes or turbulence in today’s versatile and volatile market environment. Accordingly, Rogerson and Rogerson (2021), argued that a comprehensive research programme is required to support a tourism policy. They furthermore state that this initiative may address the knowledge gaps about the changing supply-demand situations during and post COVID-19 to inform decision making and strategy development.

**Culture:** Approximately 72 percent of all CRM programs fail due to resistance to change. Iriana and Buttle (2013), believe that organizations having an appropriate organizational culture tend to experience financially desirable CRM results than those with no stability in their cultural fit. It has been observed in many organisations that the creation of an appropriate organizational culture is important for CRM success. An organization culture supporting customer interactions and relationships are likely to achieve desired CRM outcomes (Peltier, Zahay & Lehmann, 2012). According to Alada and Castano, (2019) a study conducted in restaurants, found that the restaurants atmosphere has a significant influence on their customers satisfaction and behavioural intentions which resulted in spreading a positive word of mouth advertisement. The same could be said about the hotel industry which could lead to patron’s willingness to stay at a particular hotel, irrespective of the charges.

**People:** The human factor in a CRM strategy is very important for the organization, employees, and also customers (Da Silva & Rahimi, 2007, Mendoza, 2007). Torkzadeh, Chang and Demirhan (2006), argued that customer dissatisfaction is mainly due to the unwillingness and inability on part of employees to correct service failures. CRM needs a committed workforce to support the shared values of a customer-centric culture (Ozgener & Iraz, 2006). CRM strategy is very important for the organization, employees, and customers (Da Silva & Rahimi 2007, Mendoza 2007, Rahimi, 2017). Torkzadeh et al. (2006), argued that customer dissatisfaction is mainly due to the unwillingness and inability on the part of employees to correct service failures. Studies have shown that poor performance of employees have been due to unfavourable work environment and poor support of immediate managers (Bello, Aina & Oluwole, 2021).

**Knowledge management:** Sigala (2005), argues that the success of CRM depends heavily on the collection and analysis of customer information since this information is used for developing highly personalized offerings. Abdullateef, Mokhtar, Sanuri, Rushami & Zien (2010) pointed out, that an organization can greatly succeed in building customer
relationships through effective management of knowledge, therefore, resulting in a positive outcome on the same organization’s performance.

**Change management:** Change management has been called the "defining factor between success and failure in CRM projects" Kale (2005). Kostka and Mönch (cited in Pries & Stone, 2004) refer to change management as the "process of continuous planning and realization of profound changes", necessary for an effective CRM implementation. Moreover, Juliania, Hubner, Sitorus, Pramono and Pramezwary (2021) state that there is a lack of research on the relationship of customer price perceptions and customer demographics. Furthermore, they argue that the demographics of hotel guests affected the fairness of hotel room prices during the COVID-19 pandemic.

**Structure:** CRM goals could be achieved by using the appropriate management structure (Bahadori, Mahmodi & Hasanzadeh, 2009). Ryals and Knox (2001) recognize that CRM requires involvement from the whole organization, and not only the marketing department, thus emphasizing a cross-functional approach. According to Brown and Gulycz, (2002) and John (2018), the organizational structure is one of the CRM’s critical success factors.

**Process:** Chen and Popovich, (2003) asserted that CRM is an ongoing process that comprises the redesigning core business processes. This will help the whole organization to move to a customer perspective and to help gain staff commitment in the strategy (Osarenkhoe & Bennani, 2007). Many researchers viewed ‘process’ as one of the most important CSF in terms of integration of departmental activities and cross-functional processes (Wilson, Daniel, & McDonald, 2002; Kale, 2005; Meyer & Kolbe, 2005).

Figure 1 below is the conceptual representation of the nine critical success factors identified and discussed in the literature reviewed for a successful CRM implementation.

![Figure 1: Proposed conceptual framework illustrating critical success factors for CRM implementation in the Hotel Industry](image-url)
Methodology

A methodology comprising two distinct phases was adopted for this study after consultation with the existing literature. The first phase contributes to identifying critical success factors for successful CRM implementation for which exploratory research is adopted. This enabled the development of the conceptual framework, which was then tested using Factor Analysis and Reliability Analysis (Cronbach Alpha). The second phase consists of explanatory research where Structural Equation Modelling (SEM) has been used. A survey amongst top management of the 58 luxury hotels identified has been considered. Phase two includes conducting Confirmatory Factor Analysis and the application of SEM to:

1. Establish the validity and reliability of the measurement scales of the construct developed earlier in a prior study; and
2. To test the structural model CRMhot developed.

The research instrument used for this study takes the form of questionnaires administered to the top management of the hotel industry in Mauritius. The main goal was to capture and collect their opinions and views on the CRM implementation process in the hotel industry. SEM is presently considered to be one of the most robust techniques for testing the direct and indirect relationship in the field of sciences (Kline, 2011). Before developing the SEM model, it is essential to develop the measurement model to confirm the relationships between the individual predictor variables and their latent variables. Confirmatory Factor Analysis is then used to confirm the relationships between the latent and predictor variables in the measurement model. Kline (2011) indicated that CFA could be employed to verify a hypothesized relationship between a set of indicator variables and its factors. CFA is utilized to access both the convergent and discriminant validity of each of the latent variables (Anderson and Gerbing, 1984). Therefore, each measurement model is tested for model fit, and the model may be altered to have an adequate fit, provided this is performed by considering past literature or indicator content. While accessing the overall model fit, it is of prime importance to have a look at the different fit indices. Worthington, Tiffany and Whittaker, (2006) stated that a wide range of model fit indices should be examined. These include overall model fit, incremental fit, absolute fit, and predictive fit. Hooper, Coughlan and Mullen, (2008) outlined the most common indices which can be used to confirm model fit. These indices are the normed fit index (NFI), the comparative fit index (CFI), and the Tucker-Lewis index (TLI). Absolute fit indices, such as the root mean square error of approximation (RMSEA) and the goodness-of-fit index (GFI). After conducting a CFA to check for the validity and reliability of the measurement scale, the proposed model was tested by using the (SEM) technique. The overall structural model is then built by using all the measurement models, and the links between the variables are created, whereby each of these links represents a hypothesized relationship. Hence when both the measurement and the structural models are concatenated together, the model is called the complete structural model. (Weston & Gore, 2006). Based on the structural model, the research hypotheses were tested. The statistical software AMOS 20.0 was used to perform SEM. Preliminary statistical analysis was conducted on the raw collected data, followed by which the SEM model was constructed based upon the proposed theoretical framework. Before evaluating the SEM analysis, the data were tested to evaluate if it fits the proposed model.

<table>
<thead>
<tr>
<th>Model Fit Indices</th>
<th>CMIN/DF</th>
<th>CFI</th>
<th>TLI</th>
<th>IFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.558</td>
<td>0.855</td>
<td>0.837</td>
<td>0.856</td>
<td>0.062</td>
</tr>
</tbody>
</table>

* CFI - Comparative Fit Index; TLI - Tucker-Lewis Index; IFI - Incremental Fit Index; RMSEA - Root Mean Square Error of Approximation
The fit of the structural model was deemed as adequate as the value of $\chi^2/df$ (2.558) is less than 5 Schumacker and Lomax (2004), the value of CFI is larger than 0.85 and shows progress (Bollen, 1989) and the value of RMSEA (0.062) is less than 0.08 (Browne & Cudeck, 1993; Hu and Bentler, 1998).

### Hypothesis testing of SEM model

**Table 2: Results of Hypothesis Testing**

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Std. estimate (β)</th>
<th>S.E</th>
<th>Z-value (z)</th>
<th>Sig. (p)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM → CS</td>
<td>0.469</td>
<td>0.234</td>
<td>1.596</td>
<td>0.111</td>
<td>Not supported</td>
</tr>
<tr>
<td>PEOPLE → CLWM</td>
<td>-1.447</td>
<td>0.626</td>
<td>-2.94</td>
<td>(0.022)**</td>
<td>Supported</td>
</tr>
<tr>
<td>MC → CHCI</td>
<td>2.388</td>
<td>0.789</td>
<td>2.939</td>
<td>(0.003)**</td>
<td>Supported</td>
</tr>
<tr>
<td>SCM → CLWM</td>
<td>0.507</td>
<td>0.298</td>
<td>1.725</td>
<td>(0.085)</td>
<td>Supported</td>
</tr>
<tr>
<td>SCM → CHCI</td>
<td>0.511</td>
<td>0.264</td>
<td>2.543</td>
<td>(0.011)**</td>
<td>Supported</td>
</tr>
<tr>
<td>PEOPLE → CS</td>
<td>-1.339</td>
<td>0.493</td>
<td>-2.519</td>
<td>(0.012)**</td>
<td>Supported</td>
</tr>
<tr>
<td>MC → CS</td>
<td>2.194</td>
<td>0.696</td>
<td>2.833</td>
<td>(0.005)**</td>
<td>Supported</td>
</tr>
<tr>
<td>MC → CLWM</td>
<td>2.755</td>
<td>0.891</td>
<td>-2.820</td>
<td>(0.005)**</td>
<td>Supported</td>
</tr>
<tr>
<td>PS → CS</td>
<td>-3.369</td>
<td>1.084</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS → CLWM</td>
<td>-4.141</td>
<td>1.389</td>
<td>-2.867</td>
<td>(0.004)**</td>
<td>Supported</td>
</tr>
<tr>
<td>KM → CS</td>
<td>-3.417</td>
<td>1.224</td>
<td>-2.843</td>
<td>(0.004)**</td>
<td>Supported</td>
</tr>
<tr>
<td>KM → CHCI</td>
<td>3.509</td>
<td>1.102</td>
<td>3.163</td>
<td>(0.002)**</td>
<td>Supported</td>
</tr>
<tr>
<td>KM → CLWM</td>
<td>4.238</td>
<td>1.294</td>
<td>3.164</td>
<td>(0.002)**</td>
<td>Supported</td>
</tr>
<tr>
<td>COM → CS</td>
<td>3.473</td>
<td>1.139</td>
<td>3.118</td>
<td>(0.002)**</td>
<td>Supported</td>
</tr>
<tr>
<td>COM → CHCI</td>
<td>0.308</td>
<td>1.227</td>
<td>-9.85</td>
<td>0.325</td>
<td>Not Supported</td>
</tr>
<tr>
<td>COM → CLWM</td>
<td>-0.160</td>
<td>1.456</td>
<td>-6.457</td>
<td>0.647</td>
<td>Not Supported</td>
</tr>
<tr>
<td>COM → CHCI</td>
<td>-0.191</td>
<td>1.311</td>
<td>-6.42</td>
<td>0.521</td>
<td>Not Supported</td>
</tr>
<tr>
<td>TECH → CS</td>
<td>0.801</td>
<td>5.629</td>
<td>1.138</td>
<td>0.255</td>
<td>Not Supported</td>
</tr>
<tr>
<td>TECH → CLWM</td>
<td>1.015</td>
<td>7.433</td>
<td>1.158</td>
<td>0.247</td>
<td>Not Supported</td>
</tr>
<tr>
<td>TECH → CHCI</td>
<td>0.760</td>
<td>6.115</td>
<td>1.116</td>
<td>0.265</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

***1% level of significance, **5% level of significance, *10% level of significance

From the 21 relationships, only 13 were found to be statistically significant. They are as follows: People and customer loyalty and word of mouth; Management commitment and complaint handling and customer interaction; Strategy and change management and complaint handling and customer interaction; People and customer satisfaction; People and customer complaint and customer interaction; Management commitment and customer satisfaction; Management commitment and customer complaint and word of mouth; Process and structure and customer satisfaction; Process and structure and complaint handling and customer interaction; Process and structure and customer loyalty and word of mouth; Knowledge management and customer satisfaction; Knowledge management and customer loyalty and word of mouth; and Knowledge management and complaint handling and customer interaction.

The squared multiple correlations for customer satisfaction (CS) were 0.78, customer loyalty and word of mouth (CLWM) was 0.98, and complaint handling and customer interaction (CHCI) was 0.87. This showed that a significant amount of variance in the endogenous variables could be explained by the explanatory variables. Subsequently, the different hypotheses were tested for significance.
**Discussion and findings**

**Hypothesis 1 (H1): There is a direct positive relationship between management commitment to CRM and customer satisfaction**

The analysis results show that the relationship between management commitment to CRM and customer satisfaction is statistically significant at a 1% level of significance with a p-value of 0.006, a coefficient of 2.194, and a critical ratio of 2.727. This implies that Management commitment has a direct positive effect on customer satisfaction; H1 is accepted. The more top management of hotels will be committed to supporting their CRM strategy to improve the relationship with customers, the higher the customer satisfaction level. This has been further confirmed by Roberts, Liu and Hazard (2005) who argued that top management commitment was the most important factor in CRM implementation.
**Hypothesis 2 (H₂): There is a direct positive relationship between management commitment to CRM and complaint handling and customer interaction**

The relationship between management commitment and customer interaction was found to be statistically significant at a 1% level of significance, with a p-value of 0.003, a coefficient of 2.388, and a critical ratio of 2.939. This suggests that an increase of one unit in management commitment will result in an increase in complaint handling and customer interaction by 2.388. The association between management commitment to CRM and complaint handling and customer interaction is positive. This goes in line with the study of Suntornpithug, Karaati and Khamalah (2010), who proposed that promoting a customer-centric mindset in the organization is essential and thrives under proper management. In addition, Salama (2021) state that organisations are designed by people to push people to achieve their objectives, which then becomes the means of survival for the workers.

**Hypothesis 3 (H₃): There is a direct positive relationship between management commitment to CRM and customer loyalty and word of mouth**

The hypothesis that management commitment had a direct and positive effect on customer loyalty and word of mouth was found to be statistically significant at a 1% level of significance, with a p-value of 0.005, a coefficient of 2.755, and a critical ratio of 2.833. Hence H₃ is accepted and the relationship between management commitment to CRM and customer loyalty and word of mouth is found to be positive. This implies that top management commitment plays an important role in the support of the hotel’s CRM strategy. This has been backed up by the study of Suntornpithug et al. (2010), who associated CRM with strong management support. It is important for hoteliers to understand all elements of the guests’ hotel experience so that they can have a better understanding of what guests value in a hotel stay (Sharrock, Struwig & Hansens, 2021).

**Hypothesis 4 (H₄): There is a direct positive relationship between knowledge management and customer satisfaction**

The relationship between knowledge management and customer satisfaction was found to be statistically significant at a 1% level of significance with a p-value of 0.002, a coefficient of 3.509, and a critical ratio of 3.163. This shows that knowledge management indeed has a positive effect on customer satisfaction. H₄ is accepted. David and Wendy (2009) also emphasized the relationship between CRM and Knowledge Management with a specific point on customer Knowledge Management as having a positive effect on customer satisfaction.

**Hypothesis 5 (H₅): There is a direct positive relationship between knowledge management and complaint handling and customer interaction**

Knowledge management had a statistically significant relationship with customer interaction at a 1% level of significance, with a p-value of 0.002, a coefficient of 3.473, and a critical ratio of 3.118. This shows that an increase in one unit in knowledge management will result in an increase in complaint handling and customer interaction by 3.473 units. Hence H₅ is accepted. As per Alavi and Leidner, (2001) knowledge management involves managing real-time authenticated customer, products, and services information to improve customer response and provide faster decision-making based on reliable information.

**Hypothesis 6 (H₆): There is a direct positive relationship between knowledge management and customer loyalty and word of mouth**

The relationship between knowledge management and customer loyalty was found to be statistically significant at a 1% level of significance with a p-value of 0.002, a coefficient of
4.283, and a critical ratio of 3.164. There is hence a positive affiliation between knowledge management and customer loyalty and word of mouth. H₆ is accepted. This is further confirmed by the study of Mohebibi, Shah and Esfidani, (2012) who argued that knowledge management highly affects the success of a CRM strategy.

**Hypothesis 7 (H₇): There is a direct positive relationship between people-oriented CRM and customer satisfaction**

The proposed framework included the relationship that people’s attitudes and behavior affect customer satisfaction. The results (p=0.011) show that this relationship is statistically significant at a 5% level of significance with a coefficient of -1.339 and a critical ratio of -2.543. This shows that a change in people-oriented CRM will indeed affect customer satisfaction. A similar result has been obtained by Dimitriadis and Stevens (2008) which shows that CRM success will depend largely on the human factor of the organization.

**Hypothesis 8 (H₈): There is a direct positive relationship between people-oriented CRM and complaint handling and customer interaction**

People’s attitude and behavior have a statistically significant relationship with customer interaction at a 5% level of significance, with a p-value of 0.012, a coefficient of -1.333, and a critical ratio of -2.519. The results show that the relationship between people-oriented CRM and complaint handling and customer interaction is negative and that an increase in people-oriented CRM by one unit will result in a decrease of 1.333 units in complaint handling and customer interaction. Hence it can be seen that people affect the ability to handle complaints and interact with customers. The same outcome is discussed by Zablah, Bellenger and Johnston (2004) who identified the “Human-touch” as having a crucial impact on customer interaction.

**Hypothesis 9 (H₉): There is a direct positive relationship between people-oriented CRM and customer loyalty and word of mouth**

People’s attitudes and behavior have a statistically significant and negative relationship with customer loyalty as evidenced by a p-value of 0.022 (5%), a coefficient of -1.447, and a critical value of -2.294. From the results, a negative and significant relationship between people-oriented CRM and customer loyalty and word of mouth is validated. This can be justified by the fact that it is the hotel employees who are perpetually in contact with the clients and who project an image of the institution and as argued by Ozgener and Iraz, (2006) CRM needs a committed workforce to support the shared values of a customer-centric culture.

**Hypothesis 10 (H₁₀): There is a direct positive relationship between technology-based CRM and customer satisfaction**

The relationship between technology and customer satisfaction was found to be statistically insignificant at even a 10% level of significance with a p-value of 0.255. A coefficient of 0.801 and a critical value of 1.138. No direct relationship has been observed between technology-based CRM and customer satisfaction. This is contrary to the study of Xu and Walton, (2005) who indicated that advancements relative to CRM are mostly done through several technological applications. In our case, it may be that the technology being used is not developed enough to be judged as being effective.

**Hypothesis 11 (H₁₁): There is a direct positive relationship between technology-based CRM and complaint handling and customer interaction**

The relationship between technology and customer interaction was statistically insignificant even at a 10% level of significance, with a p-value of 0.265, a coefficient of 0.760, and a
critical ratio of 1.116. Hence technology does not have a direct and positive relationship with complaint handling and customer interaction. Therefore, technology is not a determinant factor of complaint handling and customer interaction intention. Thompson, Compeau and Higgins, (2006) indicated that technology enables us to have a wider view of customer behavior. In our case, technology was not an undermining factor for complaint handling and customer interaction. This may indicate that the current use of technology may not be as effective as proposed concerning CRM in the Mauritian tourism sector.

**Hypothesis 12 (H_{12}): There is a direct positive relationship between technology-based CRM and customer loyalty and word of mouth**

As evidenced by a p-value of 0.247, the relationship between technology and customer loyalty was found to be statistically insignificant even at a 10% level of significance, with a coefficient of 1.015 and a critical ratio of 1.158. This indicates that technology-based CRM does not play a significant role in customer loyalty and word of mouth. Chalmeta (2006) stated that CRM technological systems are beneficial to firms. As such, in our case, the under usage of technology or underdeveloped technology may not affect customer loyalty and word of mouth.

**Hypothesis 13 (H_{13}): There is a direct positive relationship between CRM-focused structure and process and customer satisfaction**

The proposed model also indicated that process and structure affect customer satisfaction. The results indicate that this is indeed the case as the relationship was found to be significant at a 1% level of significance with a p-value of 0.005, a coefficient of -3.369, and a critical ratio of -2.80. Mitussis, O'Malley and Patterson, (2006), and Vazifehdust and Shahnavazi (2012) highlighted the importance of process and structure in CRM implementation. The result shows that this is indeed the case as process and structure have a significant impact on customer satisfaction. A well-structured organigram with the right flow of processes within a hotel will please the customers as they will not be faced with hurdles during their stay.

**Hypothesis 14 (H_{14}): There is a direct positive relationship between CRM-focused structure and process and complaint handling and customer interaction**

Process and structure have a statistically significant relationship with complaint handling and customer interaction at a 1% level of significance, with a p-value of 0.004, a coefficient of -3.417, and a critical ratio of -2.843. An increase of 1 unit in process and structure will result in a decrease of 3.417 in complaint handling and customer interaction. As per Mendoza et al. (2007) an effective CRM implementation facilitates the automation of marketing activities and sales processes. This statement goes in line with the fact that a significant relationship has been observed between CRM-focused structure and process and complaint handling and customer interaction.

**Hypothesis 15 (H_{15}): There is a direct positive relationship between CRM-focused structure and process and customer loyalty and word of mouth**

The relationship between process and structure and customer loyalty was found to be statistically significant at a 1% level of significance with a p-value of 0.004, a coefficient of -4.141, and a critical ratio of -2.867. It can be noted that for successful CRM, there is a need to focus on structure and process which directly affects customer loyalty and word of mouth. This goes in line with the study of Mendoza et al. (2007) who found out that CRM implementation acts as a facilitator for marketing activities. Structure and process are important components for successful CRM implementation and thus do directly affect marketing effectiveness for a hotel. The better the structure of a hotel to facilitate the execution of the CRM strategy and
have the right processes in place, the more customers will be willing to visit you again and recommend your hotel to others.

**Hypothesis 16 (H₁₆): There is a direct positive relationship between CRM-focused strategy and change management and customer satisfaction**

The model in this study assumed that strategy change and management have a direct positive effect on customer satisfaction. The results ($\beta=0.469, z=1.596, p=0.091$) showed that this relationship was statistically significant. The standardized regression weight for this path was 0.469, with a critical ratio of 1.596 and a significance of 0.091, implying that this path was significant at a 10% level of significance. Kale (2004) argued that change management helps to guide an effective CRM implementation. Strauss and Seidel (2004) believe that CRM is a strategy that helps to maintain long-term relationships with customers. It can thus be deduced that the strategy of a hotel and the way change management is handled will inevitably affect customer satisfaction.

**Hypothesis 17 (H₁₇): There is a direct positive relationship between CRM-focused strategy and change management and complaint handling and customer interaction**

The relationship between strategy and change management and complaint handling and customer interaction was found to be statistically significant at a 10% level of significance, with a $p$-value of 0.085, a coefficient of 0.511, and a critical ratio of 1.725. It has also been found that CRM-focused strategy and change management affects complaint handling and customer interaction positively. As per Strauss and Seidel (2004) CRM helps in maintaining relationships with the customers, and Kale (2005) found out that effective management of change is a predominant factor in CRM. Hence, complaint handling and customer interaction depend greatly on change management in maintaining a consistent customer relationship.

**Hypothesis 18 (H₁₈): There is a direct positive relationship between CRM-focused strategy and change management and customer loyalty and word of mouth**

The effect of strategy and change management on customer satisfaction was found to be statistically insignificant with a $p$-value of 0.151, a coefficient of 0.507, and a critical ratio of 1.436. This shows that strategy and change management does not directly have an impact on customer loyalty and word of mouth when applied to the Mauritian tourism industry. Though it has been found that strategy and change management do affect positively and significantly the other two variables considered for marketing effectiveness. This implies that customer satisfaction and customer complaint and customer interaction are more directly related to strategy and change management than customer loyalty and word of mouth.

**Hypothesis 19 (H₁₉): There is a direct positive relationship between CRM-based communication and customer satisfaction**

The affiliation of communication and customer satisfaction was found to be statistically insignificant as the relationship was not significant, even at the 10% level of significance, with a $p$-value of 0.325, a coefficient of -0.308, and a critical value of -0.985. The result shows that communication does not affect customer satisfaction. This may be because most of the clients may be from foreign countries and may not adapt to the language being used, which in turn may act as a communication barrier. However, Nguyen (2007) found out that effective communication is a factor that ensures a strong brand. Communication has been identified as a new factor that supports successful CRM implementation in the Mauritian hotel industry but may still need some time to prove itself as its usefulness to have a positive effect on marketing effectiveness.
Hypothesis 20 (H20): There is a direct positive relationship between CRM-based communication and complaint handling and customer interaction

The relationship between communication and complaint handling and customer interaction was statistically insignificant, even at a 10% level of significance, with a p-value of 0.521, a coefficient of -0.191, and a critical ratio of -0.642. This shows that neither effective nor ineffective communication affects complaint handling and customer interaction. The language barrier may be a major setback when attempting to resolve complaints and interacting with international customers in the case of Mauritius.

Hypothesis 21 (H21): There is a direct positive relationship between CRM-based communication and customer loyalty and word of mouth

The relationship between communication and customer loyalty was found to be statistically insignificant, even at a 10% level of significance as it had a p-value of 0.647, a coefficient of -0.169, and a critical ratio of -0.457. As such, CRM-based communication does not play a crucial part in customer loyalty and word of mouth. This may be explained by the fact that for the case of the Mauritian tourism sector, communication is a major hurdle to overcome as many tourists do not understand the native languages and such may be the case that the staff is not at ease with foreign languages.

Conclusion

Firstly, this research has analysed the antecedents of CRM which included identifying different causes of CRM program failures. A review of the literature and results from this study has shown that not being able to implement a CRM strategy properly is a major cause of CRM failure. Reasons led to the development of a more appropriate framework that can counteract the causes of failures of CRM projects. This study has been able to develop a holistic model incorporating nine CSFs required for the Mauritian Hotel industry. Secondly, this research has assessed an integrated structural model linking critical success factors for successful CRM implementation to marketing effectiveness which has been defined as customer satisfaction, customer loyalty and word of mouth, and complaint handling, and customer interaction. Out of twenty-one hypotheses developed, thirteen were accepted, thus showing a strong relationship between successful CRM implementation and marketing effectiveness. Thirdly, this model has been tested in the context of a developing country which differs from that of a developed country. The critical success factors are tailor-made for developing countries where education, infrastructure, technology, and communication facilities are still undergoing advancements. The seven CSFs tested and validated in this study have shown the same as Knowledge management, technology, communication, process and structure, strategy, and change management amongst others have been the major influences of successful CRM implementation.

In the hotel industry, CRM becomes a strategic imperative for attracting and increasing guests’ patronage. The hotel industry is having to deal with much more competition, which is compelling hotels to differentiate their customers. Moreover, the specific environment in Mauritius called for the reinvention of the hospitality business. The financial crisis decreased the purchasing power of those constituting the traditional customer base, that is, Europeans. Hotels turned to alternative markets such as India and China. That change called for a change in CRM strategy aligned to the “new” customers. Since the hotels can gather and integrate substantial information about their guests, CRM is viewed as an opportunity for the hotels to make use of this information to build on the relationship for improving customers’ satisfaction, and subsequently, in increasing the hotels’ profitability. Another example would be the
decision of hotels to go for the niche of the guests in search of wellness. Thus, the growth of Spa hotels on the island. Similarly, for the honeymooners’ niche and adults-only hotels.

Finally, a comprehensive framework was developed incorporating all critical success factors required for smooth execution of the CRM strategy. Added to the framework were 3 CRM metrics which are used to measure the effectiveness of CRM. The research gap identified in the literature where thirteen CRM models were scrutinized has been bridged with the development of the conceptual model CRMhot. CRMhot is yet another alternative model that can be considered for the smooth implementation of CRM in the hotel industry. The addition of communication as a dimension in the model serves as a contribution as it is an important factor for successful CRM implementation which was only briefly discussed in previous literature. This research developed a measurement scale for communication which opens new avenues for research. A valid and reliable scale for communication can thus be postulated as a theoretical contribution to this research. The addition of communication as a CSF will support hotel managers to implement CRM better. This confirms the model validity for developing economies.

References


