Assessing the influence of customer relationship management (CRM) dimensions on organization performance

An empirical study in the hotel industry

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Abstract

Purpose – The purpose of this paper is to investigate the relationship between CRM dimensions (i.e. customer orientation, CRM organization, knowledge management, and technology based CRM) and various aspects of organization performance (i.e. financial, customer, internal process, and learning and growth) in Malaysian hotels.

Design/methodology/approach – This is a quantitative study, the response came from the managers of 152 Malaysian hotels (3 to 5 star) and data collected was subjected to correlation and regression analysis in pursuance of the study’s stated objectives.

Findings – The results of this study suggest that all dimensions of CRM (i.e. customer orientation, CRM organization, knowledge management and technology based CRM) have a positive and significant impact on different perspectives of hotel performance. However, CRM technology failed to show a significant relationship with learning and growth perspective of hotel performance.

Research limitations/implications – An emphasis has been placed on the direct relationship between CRM dimensions and organization performance perspectives as well as, the study concentrated only on 3 to 5 star hotels.

Practical implications – Meaningful implications are made that building an extensive and effective CRM dimensions in hotel firms is crucial to face a high competition and improve performance in Malaysia hotel sector.

Originality/value – The paper addresses CRM dimensions issues specifically for hotels in Malaysia.

Keywords CRM, CRM organization, Customer orientation, Hotel performance, Knowledge management, Technology based CRM

Paper type Research paper

Introduction

The high level of competition has been one of the most difficult challenges in the hotel industry. It is reflected in increasingly narrow margins and growing pressure to provide more and better service, which has led to increasing costs, reduced customer loyalty and consequently a decrease in occupancy rate (Sigala, 2005; Verdugo et al., 2009; Wang and Wang, 2009; Yi-Wen and Edward, 2010).

In Malaysia, the hotel industry operates in a business environment that is characterized by aggressive competition, making it vulnerable to international competition (Awang et al., 2008; Business Monitor International, 2011). Moreover, the occupancy rates of hotels in Malaysia have fluctuated between 2005 and 2012.
This also indicates that hotel performance in Malaysia needs improvement. In other words, hotel managers need to employ a suitable strategy and practice to improve their performance (Awang et al., 2008).

Therefore, to improve both customer satisfaction and enhance profitability, hotels must nowadays focus on implementing a CRM strategy that aims to seek, gather and store the right information, share it through the entire organization and then use it at all organizational levels to create a personalized; and unique customer experience (Olsen and Connolly, 2000; Sigala, 2005; Sigala and Connolly, 2004; Wu and Li, 2011). Obviously, CRM is considered to be among the best strategies and practices for hotels to improve their performance and ultimately to ensure their long-term business survival (Kasim and Minai, 2009; Sigala, 2005; Wu and Li, 2011). There is a strong need to ensure differentiators and customer satisfaction over a long period.

However, despite the wide use of CRM in the tourism industry, there has been only limited research and publications within the hospitality industry (Hermans et al., 2009; Vogt, 2011; Wu and Lu, 2012). Yoo et al. (2011) analyzed marketing research from 2000 to 2009 — published in four hospitality journals (Cornell Hospitality Quarterly, International Journal of Hospitality Management, Journal of Hospitality & Tourism Research, and International Journal of Contemporary Hospitality Management). They stated that, as consumers’ needs change and develop continuously, understanding consumers’ behaviour has become a key success factor in a highly competitive environment like the hospitality industry, and therefore; CRM will constantly receive attention in future – research into hospitality marketing.

Line and Runyan (2012) also reviewed hospitality marketing research published within the same top hospitality journals from 2008 to 2010, to identify the trends and gaps in the literature. They found that CRM is one of the most popular topics in hospitality marketing research and there is an opportunity for hospitality researchers to contribute to the development of theory in the field.

Similarly, the impact of CRM implementation on organization performance has not received sufficient attention from academics and there is still a lack of empirical studies in this area (Krasnikov et al., 2009; Kumar, 2008; Piskar and Faganel, 2009). Tandem, Wu and Lu (2012) stated that there are a few studies that explore in detail the implementation of CRM in the hotel industry and its impact on various performance perspectives.

Furthermore, Sin et al. (2005) contended that it will be useful to explore the complexities of the relationship between CRM dimensions and alternative perspectives of performance in future studies. In addition, Zablah et al. (2004) asserted that the mechanisms through which CRM enhances performance are not well understood, and therefore managers have little guidance on how to focus their CRM effort to improve the performance of their organization.

As results, the main aim of this study is to investigate the complexities of the relationship between CRM dimensions and various performance perspectives in the hotel sector. The main research questions in this study are:

**RQ1.** To what extent do CRM dimensions influence the different perspectives of hotel performance?

**RQ2.** Which one of these dimensions has the most influence?

The answer of these questions will be useful for both academics and practitioners, as they will fill the gap in the CRM literature identified above (Akroush et al., 2011;
Sin et al., 2005; Wu and Lu, 2012). In addition, the results of the research will help hotel managers to identify which dimensions of CRM have strongest influence on their organization’s performance; this will enable them to utilize their hotels’ internal resources to implement CRM successfully, and consequently improve performance.

This paper is organized as follows: we begin with a discussion of the study variables and establish the study hypotheses. Subsequent sections describe the study’s methodology, results, and analysis. The last section offers conclusions and discusses limitations and recommendations of the research.

### Dimensions of CRM and hypothesis

There is no universally agreed definition of CRM (Hamid, 2009; Ngai, 2005). It is an area that has been viewed from multiple perspectives (e.g. technology, strategy, philosophy) and it therefore means different things to different people, depending on context and other contingent factors (Baran et al., 2008; Dimitriadis and Steven, 2008; Piskar and Faganel, 2009). Based on a review of related literature on CRM and detailed interviews with selected organizations managers, Sin et al. (2005) and Yim et al. (2005) hypothesized that the concept of CRM is a multi-dimensional construct consisting of four broad behavioural components or specific ongoing activities. These behavioural components are key customer focus, CRM organization, knowledge management and technology-based CRM. The researchers argued that their findings are in accordance with the general notion that a successful CRM is mainly implemented based upon: people; technology; strategy; and processes (Fox and Stead, 2001; Sin et al., 2005; Yim et al., 2005), and that the dimensions (i.e. key customer focus, CRM organization, knowledge management and technology-based CRM) must interact to improve an organization’s performance (Sin et al., 2005; Yim et al., 2005).

In the Malaysian context, Abdullateef et al. (2010) investigated the impact of CRM dimensions on call centers. They identified customer orientation as one of the CRM dimensions that is more comprehensive than key customer focus. In line with this thinking, several studies have highlighted the vital role of customer orientation as an important dimension of CRM (Wang et al., 2010). Furthermore, Wu and Lu (2012) contended that CRM derives from the customer orientation concept and has gradually been applied to the hotel industry to enhance the relationship between hotel enterprises and their customers. An improved sense of customer orientation in a specific organization is the core to successful external marketing, enhanced customer satisfaction, and increased overall performance of the organization (Dowling, 1993).

Therefore, this study will use the same dimensions of CRM (i.e. customer orientation, CRM organization, knowledge management and technology-based CRM) that were used in previous studies, because these dimensions are comprehensive and strongly related to the main components of CRM (i.e. people, technology, strategy, and processes).

### Customer orientation

Customer orientation refers to the employee’s predisposition to meet the customers’ needs; it has a positive impact on employees’ performance and customers’ satisfaction. Moreover, customer-oriented behaviours can maintain a good relationship between the service provider and the customers, leading to improvement in the organization’s performance (Brown et al., 2002). One of the important purposes of customer-oriented behaviours is to increase long-term satisfaction and to create customer loyalty.
Studies have demonstrated that stronger customer-oriented behaviours in organizations have a positive impact on the organizations’ performance (Kim, 2008; Yilmaz et al., 2005). This suggests that managers need to adopt a customer-centered strategy, implying a modification and adjustment of cultural norms, organizational structure, and employee performance measures and rewards (Minghetti, 2003).

When employees of customer-oriented hotels provide a superior service as a representative of the hotel, the service image of the hotel will improve, and will have a direct relationship with process fit after system implementation (Fan and Ku, 2010). Owing to the ever-changing market environment and competitive pressures in the hotel industry, hotel managers expend efforts to maximize business results through growth and increasing profitability. Thus, a more customer-oriented approach may be the best possible recourse for them to improve their performance (Tajeddini, 2010).

In this case, the literature concerning the marketing concept has assumed that the implementation of the customer orientation would lead to superior organizational performance (Kennedy et al., 2002; Piercy, 2002). Numerous studies have reported a positive relationship between customer-orientation strategy and organization’s performance (Asikhia, 2010; Dowling, 1993; Liu et al., 2003; Sin et al., 2005; Tajeddini, 2010; Zhou et al., 2009). In short, the customer-orientation strategy is one of the organization’s resources and a very important dimension of CRM. Therefore, organizations must have a customer-centric culture to implement CRM successfully and consequently create a competitive advantage.

**CRM organization**

In cases where an organization lacks a culture focused on development of long term customer relationship, CRM implementation may fail as the organization is clearly not ready for it (Dutu and Halmajan, 2011). Related to this, Mechinda and Patterson (2011) stated that for service employees to display customer-oriented behaviour, organizations must develop a climate for service in the work (e.g. providing staff with modern tools and technology, customer satisfaction tracking and complaint management systems, inspiring service leadership, and an appropriate reward system). Based on these provisions, an organization can achieve desirable employee customer-orientation behaviours.

Yim et al. (2005) argued that with a strong focus on key customers entrenched in an organization’s CRM system; the entire company should be organized around cultivating these valuable relationships. However, CRM cannot be successful even if the organizations acquire the most advanced technology and try to generate a customer-centric orientation without complete integration of the project into the organization (Sin et al., 2005). Therefore, successful CRM implementation depends on redesigning the organizational structure and processes; participation of all organizational members in the project; and leading change appropriately.

Hence, organizational structure must also facilitate communication throughout functional areas (Liu, 2007) as the information collected by CRM is useful only if it is communicated to all the relevant areas effectively (Elmuti et al., 2009). Furthermore, Chang and Ku (2009) reasserted that the organization structure plays a vital role in successful implementation of CRM and consequently improves an organization’s performance.

In the context of the hotel industry, CRM primarily depends on staff attitude, commitment and performance; external market-place success thus calls for the initial
success of the internal business through employees’ motivation and commitment (Sigala, 2005). In line with this thinking, Ku (2010) stressed that CRM success does not only require quality technology or systems but it also requires effective service concept as well as suitable operational procedures. In this case, several studies have found that CRM organization has a positive relationship with an organization’s performance (Akroush et al., 2011; Moreno and Melendez, 2011; Yim et al., 2005).

Knowledge management

In recent years, customer knowledge has been considered as a critical organizational resource, and that the techniques of transmission of knowledge regarding customers are core resources that allow a company to strengthen its link with the customers, and achieve sustainable competitive advantage (Croteau and Li, 2003; Shi and Yip, 2007). Therefore, customers’ knowledge plays a vital role in CRM. Organizations can use it to build and develop their relationship with customers (Zahay and Griffin, 2004), and it enables organizations to gain a competitive advantage in the market (Sin et al., 2005). Furthermore, successful CRM is predicated on effectively transforming customer information into customer knowledge (Plessis and Boon, 2004; Stringfellow et al., 2004).

Generated customer knowledge needs to be shared and disseminated throughout the organization (Ryals and Knox, 2001), because the potential of knowledge occurs when it is shared within various functions of the organization in order to meet current customers and their anticipated needs. Knowledge management helps an organization to succeed by building better customer relationships and it has a positive impact on an organization’s performance (Akroush et al., 2011; Sin et al., 2005; Yim et al., 2005).

Against this background, Hallin and Marnburg (2008) stressed the importance of hospitality companies building up their competitive advantage through knowledge management. Owing to intensive use of technology and the nature of its service products that depend on the relationship between employees and customers, the sector is being transformed into a knowledge-intensive sector. Therefore, knowledge management activities are becoming invaluable to hotels as they can improve employees’ knowledge of unique customers’ needs. Thus, in order for organizations to stay competitive, they need to acquire new knowledge about their customers, explore and make use of their existing knowledge, and share this knowledge within the organization.

In line with this argument, numerous studies have found that there is a positive relationship between knowledge management and market effectiveness and financial performance (Sin et al., 2005), customer retention (Yim et al., 2005), and customer satisfaction (Abdullateef, 2011). Despite these benefits there is limited research that explains the role of knowledge management in the hospitality context (Hallin and Marnburg, 2008; Lo et al., 2010; Shaw and Williams, 2009).

Technology-based CRM

With advances in information communication technology (ICT), a modern system can be used to improve the power of organizations to reduce internal costs, better interact with the environment, and increase economic profit in the long term. It has been found that hotels of different price/quality and size implement different levels of CRM system sophistication (Moriarty et al., 2008). In this regard Dutu and Halmajan (2011) opined that CRM strategy will fail to come up with the expected results if proper use of information technology is not ensured during the process. Moreover, the strategic use
of technology in marketing is one of the most significant opportunities in the hotel industry because it is necessary to get the right information from the right people at the right time, so that the right decisions can be made and/or services delivered (Dev and Olsen, 2000).

Furthermore, the use of CRM technology is expected to enhance the company’s capability to sustain profitable customer relationships by the enabling information integration and sharing that influences smooth and efficient firm-customer interactions, appropriate analysis of customer data and customization of response (Mukerjee and Singh, 2009). Additionally, Sirirak et al. (2011) argued that due to increasing competition and customer expectations, hotels have adopted ICT as a tool for dealing with rapidly changing environments. In line with this argument, numerous studies report that CRM technology has a significant positive impact on organization’s performance (Abdullateef, 2011; Akroush et al., 2011; Sin et al., 2005). Similarly, Kasim and Minai (2009) have found that the technology dimension of CRM has a positive impact on hotel performance.

Measuring hotel performance

Studies on firms’ performance have adopted various approaches to conceptualize and measure performance. It has been argued that performance is a multi-dimensional construct that cannot be adequately reflected in a single performance item (Randolph and Dess, 1984). This argument suggests that a composite measure of performance would reflect more accurately a firm’s improvements, as opposed to a single qualitative or accounting-related performance measure. Therefore, this study used the balance scorecard (BSC) approach to measure hotel performance, since BSC not only includes financial measures (measures based on financial metrics) but also includes three other non-financial measures: customers (measures are concerned with what really matters to the customers); internal process (measures related to the critical internal processes in which the organization must excel to implement strategy); and learning and growth perspectives (measures focused on building continuous improvement in relation to products and processes, and to also creating long-term growth) (Kaplan and Norton, 1992).

The BSC approach has been used widely in manufacturing industries, service industries and non-profit organizations (Kaplan and Norton, 2001). The model has also been widely embraced by business writers as a breakthrough in performance measurement and reporting (Goulian and Mersereau, 2000). Additionally, it translates mission and strategy into objectives and measurable terms, viewed from the financial, customer, internal business process, and learning and growth perspectives, providing a balance between short- and long-term objectives, between desired outcomes, performance drivers of those outcomes, and between hard objective measures and soft subjective measures (Chang and Ku, 2009).

In line with this argument, Wu and Hung (2007) contended that financial figures alone cannot provide a full understanding of CRM’s impact and results; therefore, the total performance perspective should be employed in the evaluation of CRM results. Thus, using BSC to evaluate the impact of CRM on organizational performance is critical because it is a useful tool to evaluate an enterprise’s total operation performance (Wu and Hung, 2007). To sum up, the BSC approach uses both financial and non-financial indicators to assess business performance and offers enterprises an overall in-depth understanding of business operation and performance (Kaplan and
Norton, 2004; Wu and Hung, 2007; Wu and Lu, 2012). Therefore, the application of BSC to measure hotel performance has been appropriated here, since hotels consist of many different activities such as food (restaurant), housekeeping, point-of-sale (front office), and receiver (storeroom) activities (Paraskevas, 2001), which have different cost structures. The diversity of the activities makes the use of financial measures alone inadequate. Furthermore, through CRM, organizations seek to improve customer relationships. Thus, any measure of results must include the perspective of the customers (Chang et al., 2005). Therefore, to understand the impact of CRM dimensions on hotel performance this study uses the BSC concept as a framework for the evaluation of hotel performance.

Using the four BSC perspectives to evaluate the performance of hotels, and based on previous arguments of the impact of CRM dimensions on organizational performance as well as resource based view (RBV) theory that advocates that all of resources (i.e. customer-orientation strategy, CRM organization, knowledge management, and technology-based CRM) leading to competitive advantage, this study proposes the following hypotheses:

\[ H1. \] CRM dimensions have an influence on the financial performance perspective.

\[ H2. \] CRM dimensions have an influence on the customer performance perspective.

\[ H3. \] CRM dimensions have an influence on the internal process performance perspective.

\[ H4. \] CRM dimensions have an influence on the learning and growth performance perspective.

**Methodology**

*Research framework*

The relationship between variables in this model is based on RBV theory, which proposes that organizations that have valuable resources can successfully implement a business strategy to create competitive advantage and consequently improve organizational performance. Figure 1 shows the research framework and relationship model of this study.
Data collection
Leedy and Ormrod (2005) stated that the best way to learn about the relationship among measurable variables with the intention of explaining, predicting and managing phenomena is the quantitative research method.

Furthermore, the quantitative approach is very useful to analyze and prove theories, discover important variables for future research and relate variables posed by questions or hypothesis, using standards of validity and reliability and statistical procedures (Creswell, 2009). Therefore, the study utilized the survey method to test the hypotheses, with a standardized questionnaire as the main data collection instrument.

A structured questionnaire was sent to 410 hotels. Altogether, a package comprising covering letters from Universiti Utara Malaysia (UUM) and Malaysian Association of Hotels (MAH, 2011), the questionnaire itself and a business reply envelope were sent to the selected hotels whose names and addresses were obtained from the MAH membership directory 2012.

The selected hotel all had 3 to 5 star ratings, because these types of hotels are more interested in implementing CRM than are others (Kasim and Minai, 2009). The study used hotels managers as the respondents. To increase the respondents’ completion rate, the researcher visited most of the hotels in northern Malaysia and used research assistants to distribute the questionnaires. Of the 410 organizations, 164 returned the questionnaires; 9 questionnaires were received from hotels that did not use CRM, and 3 questionnaires were incomplete, so only 152 questionnaires were useful for analysis.

Measures and scales
The customer-orientation construct was operationalized using the measurement developed by Moreno and Melendez (2011), and based on previous studies by Narver and Slater (1990) and Sin et al. (2005). The CRM organization, knowledge management and technology-based CRM were operationalized using the instrument developed by Sin et al. (2005) and Yim et al. (2005). For hotel performance, the study used the instrument suggested by Wu and Lu (2012) and originally developed by Kaplan and Norton (1996, 2004). All of the constructs in this study were captured via a five-point Likert scale.

Moreover, to investigate the reliability of the questionnaire, the study used Cronbach’s $\alpha$ coefficient on all the constructs and the scores for all the variables were indicative of the questionnaire’s having a high level of reliability, higher than 0.70. In line with the abundant literature on scale measurement (Field, 2005; Hair et al., 2010; Pallant, 2007), it is possible to conclude that the reliability of the research instruments in terms of their internal consistency is within a satisfactory level.

In terms of validity, since all the items included in this study were carefully chosen from previous empirical studies, it can be argued that the content of the individual constructs are valid. Additionally, the instrument was discussed in depth with some managers (i.e. division managers in some hotels) and academicians during the pre-testing stage, to ensure that the instrument items were relevant from their perspectives.

In addition, exploratory factor analysis (EFA) was used to test construct validity, providing an accurate means of conceptualizing unobservable constructs, and capable of grouping items of factors that were highly correlated as well as separate factors that differ from each other (Sekaran and Bougie, 2010). Table I provides the results of EFA and reliability tests of all constructs.
Table I. Factor loading and reliability test

<table>
<thead>
<tr>
<th>Factors and items</th>
<th>Factor loading</th>
<th>Eigenvalues</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer orientation</td>
<td></td>
<td>6.77</td>
<td>0.84</td>
</tr>
<tr>
<td>Organization’s business objectives are oriented to customer satisfaction</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization closely monitors and assesses its level of commitment in serving customer needs</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization’s competitive advantage is based on understanding customer needs</td>
<td>0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization’s business strategies are driven by objective of increasing value for customers</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization frequently measures customer satisfaction</td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization pays great attention to after-sales service</td>
<td>0.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization offers personalized products and services for key customers</td>
<td>0.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRM organization</td>
<td></td>
<td>2.30</td>
<td>0.78</td>
</tr>
<tr>
<td>My organization has the sales and marketing expertise and resources to succeed in CRM</td>
<td>0.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our employee training programs are designed to develop the skills required for acquiring and deepening customer relationships</td>
<td>0.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My organization has established clear business goals related to customer acquisition, development, retention, and reactivation</td>
<td>0.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee performance is measured and rewarded based on meeting customer needs and on successfully serving the customer</td>
<td>0.75</td>
<td></td>
<td></td>
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<tr>
<td>Our organizational structure is meticulously designed around our customers</td>
<td>0.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer-centric performance standards are established and monitored at all customer touch points</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My organization commits time and resources to managing customer relationship</td>
<td>0.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology-based CRM</td>
<td></td>
<td>1.82</td>
<td>0.77</td>
</tr>
<tr>
<td>Organization has right hardware to serve its customers</td>
<td>0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization has right software to serve its customers</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization’s information systems are integrated across the different functional areas</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individualized information about each customer is available at all contact points</td>
<td>0.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization is able to consolidate all information acquired about customers in comprehensive, centralized, up-to-date database</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge management</td>
<td></td>
<td>1.58</td>
<td>0.84</td>
</tr>
<tr>
<td>My organization’s employees are willing to help customers in a responsive manner</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My organization fully understands the needs of our key customers via knowledge leaning</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My organization provides channels to enable ongoing, two-way communication with our key customers and us</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers can expect prompt service from employees of my organization</td>
<td>0.70</td>
<td></td>
<td></td>
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</tbody>
</table>

(continued)
Furthermore, the statistical measures of the Pearson moment correlation coefficient were used to answer the main questions posed by the study. The RQ1 question concerned the relationship between CRM dimensions and hotel performance perspectives. Table II shows that there is a high correlation among the various dimensions of this study, which indicates that there is a relationship between CRM dimensions and hotel performance perspectives. In addition, all 16 coefficients are positive, which firmly indicates that the CRM dimensions – hotel performance perspectives relationship is positive.

Even though correlation is reliable, statistical significance does not imply causation. Furthermore, the indication of correlation coefficient (r) does not explain how much the variance in the dependent variable is when several dependent variables are

### Table I.

<table>
<thead>
<tr>
<th>Factors and items</th>
<th>Factor loading</th>
<th>Eigenvalues</th>
<th>Cronbach's ( \alpha )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel performance: learning and growth perspective</td>
<td>6.24</td>
<td>0.71</td>
<td></td>
</tr>
<tr>
<td>Improve employee’s problem-solving ability</td>
<td>0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve employee’s service quality</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve employee’s intention to learn</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effectively promote corporate culture</td>
<td>0.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel performance: internal process perspective</td>
<td>1.29</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td>Increase market share</td>
<td>0.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase operating efficiency</td>
<td>0.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce customer complaint</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve the ability to retain old customers</td>
<td>0.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve the ability to confirm target customers</td>
<td>0.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel performance: customer perspective</td>
<td>1.04</td>
<td>0.72</td>
<td></td>
</tr>
<tr>
<td>Increase sales growth rate</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfy needs of various types of customers</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase customer intention to purchase</td>
<td>0.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase customer satisfaction</td>
<td>0.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel performance: financial perspective</td>
<td>1.00</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td>Reduce total cost of the hotel</td>
<td>0.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce unexpected losses</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase return on assets</td>
<td>0.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase net profit margin</td>
<td>0.50</td>
<td></td>
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</tbody>
</table>

Notes: Significant at: *0.01 level (two-tailed); \( n = 152 \)

### Table II.

<table>
<thead>
<tr>
<th>Factors and items</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Customer orientation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) CRM organization</td>
<td>0.52*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Knowledge management</td>
<td>0.40*</td>
<td>0.45*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Technology based CRM</td>
<td>0.30*</td>
<td>0.35*</td>
<td>0.36*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Financial performance</td>
<td>0.41*</td>
<td>0.45*</td>
<td>0.40*</td>
<td>0.36*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Customer performance</td>
<td>0.45*</td>
<td>0.55*</td>
<td>0.42*</td>
<td>0.38*</td>
<td>0.65*</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>(7) Internal process performance</td>
<td>0.42*</td>
<td>0.47*</td>
<td>0.43*</td>
<td>0.36*</td>
<td>0.56*</td>
<td>0.65*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>(8) Learning and growth performance</td>
<td>0.47*</td>
<td>0.51*</td>
<td>0.42*</td>
<td>0.30*</td>
<td>0.46*</td>
<td>0.60*</td>
<td>0.60*</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes: Significant at: *0.01 level (two-tailed); \( n = 152 \)
used simultaneously. Further analysis must therefore be carried out using multivariate analysis such as multiple regression.

In this case, the study used multiple regression analysis to test the above mentioned hypotheses. This technique was utilized to analyze the relationship between single dependent variable and several independent variables (Field, 2005; Hair et al., 2010). Table III displays the regression results of the relationship between CRM dimensions and the four perspectives of hotel performance.

**Results**

The interpretation of the regression is based on the standardized coefficient beta ($\beta$) and $R^2$, which provides evidence to support or not the hypotheses. In terms of financial performance, the results reveal that CRM dimensions have a positive and significant relationship with the financial perspective of hotel performance. Table III indicates that 30 per cent of the variation in financial performance in the hotel sector is explained by CRM dimensions. On one hand, the findings indicate that CRM organization was the strongest predictor of variation in financial performance of hotel enterprises ($\beta = 0.22$ significant at $p < 0.05$). On the other hand, the other dimensions of CRM (CO, TCRM, and KM) have the same influence on financial performance ($\beta = 0.17$ significant at $p < 0.05$). Consequently, the findings provide support for $H1$ (i.e. CRM dimensions have an influence on the financial performance perspective).

The results also show that 38 per cent of variation in customer performance in the hotel sector is explained by CRM dimensions. The findings revealed that CRM organization has the strongest predictor of variation in customer performance of hotel enterprises ($\beta = 0.34$ significant at $p < 0.01$). Next, in sequence, are TCRM ($\beta = 0.16$ significant at $p < 0.05$), CO ($\beta = 0.16$ significant at $p < 0.05$), and KM ($\beta = 0.14$ significant at $p < 0.05$). Consequently, the findings and results provide support for $H2$ (i.e. CRM dimensions have an influence on the customer performance perspective).

Regarding the impact of CRM dimensions on internal process, CRM dimensions explained 33 per cent of variation. The findings indicate that CRM organization is the strongest predictor of variation in internal process performance of hotel enterprises ($\beta = 0.24$ significant at $p < 0.01$). The other dimensions of CRM (CO, TCRM, and KM) have a similar influence on internal process performance ($\beta = 0.20$ significant at $p < 0.05$). Consequently, the findings and results support for $H3$ (i.e. CRM dimensions have an influence on the internal process performance perspective).

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>FP</th>
<th>CP</th>
<th>IPP</th>
<th>LGP</th>
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</thead>
<tbody>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>0.17***</td>
<td>0.16***</td>
<td>0.17***</td>
<td>0.24***</td>
</tr>
<tr>
<td>CRM</td>
<td>0.22***</td>
<td>0.34***</td>
<td>0.24***</td>
<td>0.29***</td>
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<tr>
<td>KM</td>
<td>0.17***</td>
<td>0.14***</td>
<td>0.20***</td>
<td>0.17***</td>
</tr>
<tr>
<td>TCRM</td>
<td>0.17***</td>
<td>0.16***</td>
<td>0.16***</td>
<td>0.07ns</td>
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<tr>
<td>$R^2$</td>
<td>0.30</td>
<td>0.38</td>
<td>0.33</td>
<td>0.35</td>
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<tr>
<td>$F$</td>
<td>15.76</td>
<td>23.44</td>
<td>17.74</td>
<td>19.88</td>
</tr>
<tr>
<td>$n$</td>
<td>152</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table III.**

Summary of multiple regression analysis for CRM dimension influencing hotel performance perspectives

**Notes:** Significant at: * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$; ns – not significant; $\beta$ – standardized coefficient; FP is financial performance; CP – customer performance; IPP – internal process; LGP – learning and growth performance; CO – customer orientation; CRM – CRM organization; KM – knowledge management and TCRM – technology-based CRM
Assessing the influence of CRM dimensions

Discussion

This study sought to understand the influence of CRM dimensions (i.e. customer orientation, CRM organization, knowledge management and technology-based CRM) on different perspectives of hotel performance. In general terms, our study found that CRM dimensions have a significant and positive relationship with the four aspects of performance, namely financial ($R^2 = 0.30$), customer ($R^2 = 0.38$), internal processes ($R^2 = 0.33$) and learning and growth ($R^2 = 0.35$). Thus, our study is in line with the CRM literature, supporting the long-held belief that CRM plays a vital role to improve business performance (Akroush et al., 2011; Dutu and Halmajan, 2011; Kasim and Minai, 2009; Ramani and Kumar, 2008; Sin et al., 2005). According to the results of our research, CRM dimensions in the hotel industry have a significant and positive influence on financial and customer performance, as numerous authors argue (Akroush et al., 2011; Sin et al., 2005).

This perhaps can best be explained through the argument made by Wu and Li (2011), in that when customers have a more positive reaction to the CRM actions offered by a hotel, then the quality of the relationship will be better. Consequently, customer loyalty and profitability will be increased. In line with this argument, Ryals (2005) contended that CRM activities generate better company performance when managers focus on maximizing the value of customers.

Regarding the influence of CRM dimensions on the internal processes perspective of hotel performance, we find that CRM dimensions have a positive and significant influence on internal processes. These results are in line with the arguments made by Kim et al. (2003) in recognizing an improvement when an organization integrates all the relevant information on each customer across the enterprise in order to facilitate more effective planning, marketing and services. Moreover, when companies interact with customers they can understand their needs and requirements. Consequently, customer loyalty is created. Collecting and understanding customer needs is critical to conducting the value-adding activities, since customer value can be added by product and service customization, additional information provision, and quality enhancement. Thus, by managing and maintaining CRM more effectively, hotels can satisfy their customers and achieve operational excellence.

On the other hand, our study found a positive and significant influence of only three dimensions of CRM (i.e. customer orientation, CRM organization and knowledge management) on learning and growth; technology-based CRM failed to show
a significant relationship with the learning and growth perspective of performance. These results are similar to the argument that was made by numerous researchers (Osarenkhoe and Bennai, 2007; Payne and Frow, 2005), in that organizations cannot implement CRM successfully and consequently improve their performance if they deal with CRM merely as a technology solution for managing customer information, since CRM is a strategic approach to improving performance.

Our study also reinforces the findings of Reinartz et al. (2004) and Jayachandran et al. (2005) that CRM technology does not have a significant impact on organizational performance. In line with this thinking, Ernst et al. (2011) found that CRM technology does not have a significant relationship with new product performance in organization. In this case, Reinartz et al. (2004) argued that CRM does not solely engage the adoption of the sophisticated CRM technology and software. CRM implementation is more complex and involves other elements. In other words, relying only on CRM technology is not the best way to improve learning and growth performance in the hotel sector. Therefore, hotels must integrate CRM technology with other dimensions of CRM (customer orientation, CRM organization and knowledge management) to enhance learning and growth performance.

Yim et al. (2005) supported the previous argument and found that technology-based CRM did not show significant influence on the performance metric of service firms in Hong Kong. Thus, organizations can build strong and long-term relationships with customers and consequently enhance their financial performance by thinking of CRM as a comprehensive perspective rather than simply technology. This is a thinking approach driven by a business strategy that focuses on the needs and requirements of customers and how organizations can satisfy them (Akroush et al., 2011).

Furthermore, judging from the results of Sin et al. (2005), we find that the influence of CRM dimensions on customer performance is more favourable than on other aspects of hotel performance. This perhaps can be explained through the argument by numerous researchers (Ryals and Knox, 2001; Ryals and Payne, 2001; Sin et al., 2005) that CRM is grounded on relationship marketing principles. Therefore, hotel managers can effectively improve their marketing performance (trust, satisfaction, and customer loyalty) through appropriate implementation of CRM. In fact, with improvement in marketing performance like satisfaction and customer loyalty, financial performance will be improved accordingly; they seem directly proportional to each other. Through CRM, relationships with customers can be effectively managed and fostered as important resources in an effort to improve customer retention and thus profitability.

The current work provides empirical evidence of the strong influence of CRM organization on various aspects of hotel performance. These findings are contrary to other studies such as Kasim and Minai (2009), who found CRM technology to be a significant influence on hotel performance in Malaysia. However, our findings are similar to the standpoint of other CRM studies (Sin et al., 2005; Yim et al., 2005), which draw attention to the success of CRM efforts undertaken by organizations. The organizing function of management involved, in terms of allocating the required resources and aligning the essential capabilities necessary to transform customer-related objectives into a strong and profitable relationship with customers. Such a belief has been strongly supported by Moreno and Melendez (2011) and Sigala (2005), who found that organizational factors such as organization structure, top management support and human resources play a vital role in the success of CRM
in the hotel industry. Such actions undertaken under a CRM organization effort collectively play an important role in achieving concrete results that translate into financial gains and enhance the organization’s financial performance.

Implications of study
From the theoretical perspective, the study contributed to filling the gap in the area by looking at the ambiguous relationship between CRM dimensions and various perspectives of hotel performance (Akroush et al., 2011; Sin et al., 2005; Wu and Lu, 2012). Hence, the results of this study show that CRM dimensions (customer orientation, CRM organization, knowledge management, and technology-based CRM) do relate to various perspectives of performance (financial, customer, internal business, and learning and growth) in hotel sector. On the other hand, from the practical perspective, the hotel managers could use the findings to improve performance and thus will ensure their survival in this highly competitive market. Clearly, the findings of this study indicate that hotel enterprises in Malaysia need to effectively manage CRM dimensions (i.e. customer orientation, CRM organization, knowledge management, and technology-based CRM) since they can lead to better performance.

In addition, the results revealed that CRM organization has a strong influence on different perspectives of hotel performance. This means that hotel managers should reinforce the strategic dimensions of CRM based on organizational culture and structure, as well as employee skills, rather than focusing only on the technology dimension of CRM, to build a strong and long-term relationship with customers and as a result improve their different perspectives of hotel performance. Furthermore, simply relying on CRM technology is probably not the best way to improve the learning and growth performance in the hotel sector. Interaction with other dimensions of CRM is likely to be more effective.

Conclusion and future studies
CRM has speedily become one of the most important competitive business strategies in recent times, involving managerial efforts to manage business interactions with customers. The main purpose of the study was to empirically investigate the complexities of the relationship between CRM dimensions and various perspectives in the hotel sector. Moreover, in the general literature there is a strong recommendation to investigate the relationship between CRM dimensions and various areas of performance in the sector (Akroush et al., 2011; Sin et al., 2005; Wu and Lu, 2012).

Hence, two of the most important findings of this exploratory work are the existence of the relationship between CRM dimension and hotel performance perspectives, as well as the identification of the strong influence dimension of CRM on hotel performance. These results, therefore, have significant implications for practitioners and the hospitality marketing literature.

Our findings suggest that the four CRM dimensions are important determinants of hotel performance perspectives. However, technology-based CRM is not significantly related to the learning and growth perspective of hotel performance. In addition, the results suggest that the dimension of CRM organization has a strong influence and is significantly related to different perspectives of hotel performance. Thus, hotel managers can pay attention to the internal resources especially of CRM organization (e.g. top management support, employee involvement, organizational structure and
implementation of customer-orientation culture) to improve their performance and consequently to create a competitive advantage.

No doubt, some limitations result from trade-off decisions in the research design. First, this study only examines the direct relationship between CRM dimensions and hotel performance perspectives. Future research should examine other factors that may affect the relationship between CRM dimensions and hotel performance, such as external environmental factors and hotel attributes. Second, the researchers believe that if the study is conducted throughout all the star rating hotels in Malaysia rather than concentrating on the 3 to 5 star hotels, it may give a better scenario of hotel performance.

References


Further reading

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