CUSTOMER RELATIONSHIP MANAGEMENT SYSTEMIC MODEL IN MEXICAN SMALL, MICRO AND MEDIUM ENTERPRISES FOR THE HOTELIER SECTOR

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ABSTRACT

Currently in Mexico and the world the economy is characterized by factors such as socio/political/monetary issues competitiveness, technological innovation and the global nature of markets. Given this complex, random and demanding environment, companies must adopt new management practices to ensure their viability and competitiveness in the market.

To survive in today's competitive environment, they must be transformed from their roots; its management philosophy will be focused on achieving sustainable competitive advantages based on knowledge of "what makes a difference" from the competition. To achieve this distinction, companies must generate value added services, i.e. require insight into customers to properly understand their needs, so it is essential to establish relationship activities with them, allowing them to achieve that knowledge.

In this paper it is presented the Information and Communications Technologies (ICT) as an essential tool for improving the competitiveness of Small and Micro companies, enabling their presence in complex markets. Thanks to advances produced in ICT, particularly in areas such as management and data storage and capabilities of the Internet, individualized relationships with many customers and greater knowledge of them is possible.

CRM (Customer Relationship Management) arises inside of ICT. It was in the 90s and has become a key tool for managing today's businesses.

Taking a strategic analysis of the current situation of this sector in Mexico, it is possible to note that hotel companies face an increasingly competitive environment, in which the contest is the increase in quality without increase in price, while loyalty to the customer is decreasing. It has been found the customers are now more experienced and demanding and there is a growing monopoly in the industry and a strong increase in available hotel offers.

The systemic knowledge will study the tourism sector, conceptualize, and observe the sector as a system and fully display the mature of their interrelationships. Therefore, the concept of hotel companies will be addressed from the systemic approach.

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Furthermore, at present the degree of development and implementation of CRM in the Mexican hotel industry cannot be considered fully examined and part of the problem is to determine characteristics of this sector, which affect to a greater degree the implementation of CRM.

This research arises to ascertain if the implementation of a CRM initiative involves organizational change and therefore is feasible to design a systemic model for its implementation that has valid measurement scales and is reliable for different variables of the proposed model. These variables could influence the success and result of a CRM strategy. We therefore propose a new definition of CRM from a systemic point of view.

Keywords: Loyalty, CRM (Customer Relationship Management with customers), Small and Micro Enterprises Hotels (Hotels SMEs), Information and Communications Technologies (ICT), systemic approach.

INTRODUCTION

In a competitive environment such as todays, organizational relationships with clients become important and completely modify the company's marketing strategies using a relational transactional approach (Grönroos, 1994, p.420). From this new personal approach, the focus is on establishing and developing personalized relationships with customers, which are beneficial for both parties and allow for a long-term bond.

Undoubtedly, CRM (Customer Relationship Management) has recently become one of the most controversial issues and a focal point in the business field (Balaram and Adhikari, 2010; Becker et al., 2009; Dimitriadis and Steven, 2008; Ozgener and Iraz, 2006). It is worth mentioning that CRM is mainly based on the belief that establishing a sustainable relationship with customers is the cornerstone for obtaining loyal customers who are much more profitable than non-loyal ones (Dowling, 2002).

The hotel sector in Mexico and in the world is particularly relevant for tourist activity in general. Hotel companies are currently facing an ever-changing environment with demanding customers and need CRM strategies, where technology in most cases is noted as an essential component in response to the establishment of a practical strategy to develop relational communication with personalized customers. However, after reviewing relevant literature, it can be said that it is necessary to conduct a comprehensive analysis of all factors that influence the success of a CRM strategy. Therefore, in this work a different concept of CRM is proposed, from a systemic business point of view; it integrates as organizational variables, technological, knowledge management and is customer centered. This reflects in the proposed model, together with the measurement scales used for further study in Mexican hotel companies. Finally, we conclude from the literature review that most of the studies conducted so far on CRM and mainly in the hotel sector are exploratory studies and point out that most of these are empirical. Moreover, this research referring to the problems incurred when implementing CRM in practice.

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BACKGROUNDS

Customer Relationship Management (CRM)

Following are three questions according to Hashimura (2011) and this article examines and responds to them; in addition, an approach is made to the proposed model, so that it can establish a customer strategy that can be developed and analyzed from a systemic point of view. Therefore, direct contacts between actions to customers and desired outcomes are emphasized. Similarly, if exposed at a high level, as a CRM strategy it can help generate more revenue, reduce costs and improve business performance.

What is CRM and why it is important for a company? This is the question many business managers have made, and time has shown that the "customer strategies" and the supporting technologies are becoming increasingly important in managing a business. Predictions of the ICT (Information and Communications Technologies) sector have been fulfilled and today, CRM is one of the business areas that receive most investment in prestigious companies. What trends reflect this growth? Why are companies investing in CRM? (Hashimura, 2011).

Below is the answer the first question: What is CRM and why it is important for a company?

In this connection, it is worth noting that the concept of CRM can be defined in different ways. It also means different things to different people depending on the working environment it has been used in (Baran et al., 2008; Dimitriadis and Steven, 2008; Piskar and Faganel, 2009). Therefore, there is no single correct definition of CRM (Abdullatif et al., 2010; Hamid, 2009; Ngai, 2005), and according to Hashimura (2011, p.2) CRM is defined over time in various ways, all based on the same principle but different perspectives.

For marketing managers CRM is a strategy to identify, acquire and retain customers. This definition reflects the constant pressure of market competition for companies to give extra value to their customers and increase their competitiveness.

For other people, it may be that technological support allows centralizing customer-facing activities including marketing, commercial activity and customer service. This definition is directly associated with the fact that the capabilities of currently available technology and its democratization, allow unifying a single process management tool (formerly administered separately including among these "commercial automation" and "customer services"), elements now directed by CRM systems that centralize data and management.

On the other hand for software makers regardless of the product developed, i.e. CRM, it is the direct result of their ability to provide and position it based on information technology trends within the market to take advantage of the growing demand for CRM software products.

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This diversity definition is based on various perspective differences and their motivations.

However, to enrich the literature about CRM, this study will define it as: "Business strategy which can be supported by ICT such as software and seeks to implant and develop valuable relationships, knowledge-based, with customers and other stakeholders as dictated by systemic (suppliers, employees)."

Thus, we can conclude that CRM is defined not just as technology, but a technology medium that enables and facilitates its implementation.

CRM means redefining and redesigning the company and its processes to guide the client, so that can mean customized services and / or products that are offered. The institution may well completely meet the needs of consumers (customers), generating relationships of long-term loyalty, thus, benefiting both parties.

SMEs in Mexico

In this section, the second question will be answered: What trends reflect this growth?

It is considered that SMEs are the backbone of the economy of a country because:

- It can be considered the main generator of jobs, and the best distributor of income between people and between regions, and it is indispensable for large companies to exist and also a key factor for social cohesion and the economic mobility of people.

- For Mexico no doubt SMEs are an indispensable vital link for national development.

- The companies are the mainstay of the economy, sustaining jobs and generating wealth. As such, they deserve special attention so that they can take advantage of the opportunities in Mexico to fulfill the task of creating jobs.

The Small, Micro and Medium Enterprises (SMEs) are the backbone of the national economy from trade agreements that Mexico has had in recent years and also for its high impact on job creation and domestic production. According to data from the National Institute of Statistics and Geography (INEGI) in Mexico there are about 4 million 15 thousand business units, of which 99.8% are SMEs that generate 52% of the Gross Domestic Product (GDP) and 72% of employment in the country (ProMéxico, 2014).

The same ProMéxico (2014) study, states that the importance of SMEs is essential to implement actions to improve the economic environment and directly support companies, in order to create the conditions that contribute to their establishment, growth and consolidation.

Legally in Mexico Small, Micro or Medium Enterprises are based solely on the number of company employees. PROMÉXICO (2014) mentioned that there are over 3.3 million businesses in the country. To give an idea of what this number means it can be considered equivalent to one in six families that have or manage a business.

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The 2014 Economic Census is in process and this great national project aims to obtain basic statistical information relating to 2013, on all establishments producing goods, marketing goods and service providers to generate economic indicators of Mexico in geographical, sectorial and thematic detail (INEGI, 2014).

However, according to INEGI in Mexico in 2009 there were about 5,144,056 companies, of which 3,724,019 correspond to SMEs (72.4 per cent).

Mexico has an important base of Micro, Small and Medium Enterprises, clearly stronger than in many other countries and this should be used to make the country more competitive. This becomes a real advantage to attract new investment and strengthen the presence of products and Mexican companies, both within and outside the country.

Tourism Sector

For some time now, in all sectors and particularly in the tourism sector, the concept of competitiveness is essential for the ability of companies and countries to maintain their position in an increasingly integrated world.

According to the study by ProMéxico (2014), it can be seen that the importance of the service sector in the Mexican economy has gradually increased, resulting in more than half of existing jobs and positively contributing to the formation of GDP.

This can be seen in the tourism sector, particularly in the hotel industry that consists of one of the most relevant service sectors which provides both the development of other economic activities and the distribution of global wealth.

For some time now The Ministry of Economy in Mexico (SE) and The Ministry of Tourism (SECTUR) have worked on innovations in the tourism sector, using information technology which has caused changes in the basis of company competitiveness, including hospitality.

An analysis of tourism competitiveness shows that the feature that should be noted as the most significant is the increased competition which has faced businesses in recent decades and has resulted in many of them having to cease operations not achieving their objectives in terms of profitability.

Also, most companies that offer this type of service, generate a high diversity of products and opportunities available to the customer, making adaptation to their wants and needs a substitute practice of traditional standardization of supplies including hotels jobs, travel agencies, airlines, restaurants, leisure and other passenger services.

Consequently, companies should look for alternative sources of differentiation that allow them to make their business profitable and ultimately achieve sustainable competitive advantages and guarantee survival in the long term.

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Hotels and Tourism in Mexico

The hotel industry in Mexico is growing after the crisis unleashed five years ago, highlighted by the electronic search in hotels by Buuteeq (2014). This growth is partly due to having greater liberty for young tourists on the beaches in Cancun and Los Cabos, where due to few restrictions, it became a tourist attraction for young people who could do as they please with no problem.

Adam Brownstein, co-founder of Buuteeq, announced the results of the study "How travelers can find hotels in Mexico". This study marked the importance of mobile devices such as a new sales channel for the hotel industry in Mexico. The study analyzed more than 450,000 visits to the websites of 60 hotels in Mexico during the month of July which is notorious for the increased use of smartphones and tablet computers as a tool to book hotels (Buuteeq, 2014).

According to data from the Ministry of Tourism (SECTUR, 2014), for 2011, the City of Mexico reported a total of 48,000,888 hotel rooms. According to distribution by category, rooms in hotels of category 5 and 4 stars represent 30% and 20% respectively of total rooms.

Below, Table 1 shows the trend of the hotels in Mexico City.

Table 1 Trend of the hotels in Federal District, Mexico (SECTUR, 2014)

Year	Rooms Offer Hoteliers							
	5 Stars	Var%	4 Stars	Var%	Others	Var%	Total	Var%
2003	11,752	----	10,042	----	24,592	----	46,386	----
2004	12,726	8.29%	9,138	-9.00%	24,462	-0.53%	46,326	-0.13%
2005	13,347	4.88%	9,244	1.16%	24,871	1.67%	47,462	2.45%
2006	14,077	5.47%	9,549	3.30%	25,783	3.67%	49,409	4.10%
2007	14,270	1.37%	9,550	0.01%	24,904	-3.41%	48,724	-1.39%
2008	14,282	0.08%	9,478	-0.75%	25,016	0.45%	48,776	0.11%
2009	14,336	0.38%	9,535	0.60%	24,747	-1.08%	48,618	-0.32%
2010	14,459	0.86%	9,736	2.11%	24,339	-1.65%	48,534	-0.17%
2011	14,643	1.27%	9,930	1.99%	24,315	-0.10%	48,888	0.73%
AAGR (03-11)	2.79%		-0.14%		-0.14%		0.66%	

By analyzing the information in Table 1, we see that the rooms offered by hoteliers in general, according to records of SECTUR, show an Annual Average Growth Rate (AAGR) of 0.66%, obtaining a recovery in the fourth quarter of 0.9 percentage points.

It can also be seen that 5-star hotels reported Annual Growth Rate Media (AAGR) 2.79%, with a stable variation; however, the 4-star hotels recorded a decline of 0.14%, resulting in a stable supply of rooms in the years 2009 to 2011.

The participation of hotels below 4 stars category results in a need to increase inventory in tourist class hotels, i.e. 4 and 5 stars. This gives an opportunity for new establishments of this range, especially for SMEs hospitality.

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According to SECTUR studies and based on INEGI records establishments less than four stars category are affected in a major way or those that do not have a famous name; compared with "Big Tourism" establishments, 5 stars hotels normally record a smaller decline during recessions and a greater recovery; thus showing an improved ability to cope with local and global periods of economic contraction.

CRM in the Mexican Hotel Sector

In this section the answer to the third question is obtained: Why are companies investing in CRM?

Tourism in Mexico has begun to show growth. Official figures and international perspectives demonstrate that the tourism industry is facing a roll that could last for many years.

The professionalization of the sector, the development of a transportation infrastructure, diversification in offering products and services to overcome the insecurity image, are some of the challenges that are on the list for tourism to attain greater heights.

The 5 factors threatening the growth of tourism, according to the findings of the experts consulted by Forbes Mexico (Arteaga, 2014), are:

- Connectivity and Transportation

- Diversify supply

- Professionalize the sector

- Delinquency

- Highlight the trademark of Mexico

Changing environments which are characterized by the progressive opening and liberalization of markets, with global competition, organizations must permanently, quickly and inexpensively adapt to market changes to seize new opportunities, intensifying competition and technological innovations.

In response to this complex and competitive environment, technology, marketing orientation and relationships converge using the CRM strategy. Again, the presence of IT is clearly seen in the hotel sector in the categories of hotels established in Major Tourism. Therefore, it is necessary to find ways to present such strategies as SMEs hospitality.

Ultimately, CRM is a strategy which aims to select and manage customers to optimize long-term value. Its implementation requires a business philosophy focused on the customer and a company culture that strongly supports the processes of marketing, sales and service. The CRM applications allow management to implement customer

relationships when the company has leadership, strategy and a successful culture (CRM Gurú, 2014).

CRM is characterized as multi-functional and the 5 basic pillars of an enterprise: information, strategy, people, process and technology should be considered.

Successful models in the implementation of CRM

This section discusses the characteristics of two models that allowed the successful implementation of CRM; as can be seen none alludes to SMEs and could not be considered as a form of systemic CRM success.

An Empirical Study on the e-CRM Performance Influence Model for Service Sectors in Taiwan

This research is to explore the key issues about e-CRM performance influence for service sectors in Taiwan. A research model was proposed based on the widely applied technology-organization-environment (TOE) framework. Survey data from the questionnaire was collected to empirically assess our research model.

With the structural equation modeling (SEM) analysis, the results show that e-CRM technology and organizational support are positively related to the e-CRM performance, while environmental pressure, though a drive to e-CRM adoption does not significantly impact the performance. More interestingly, it was observed that organizational support has a greater impact than e-CRM technology adoption. It is always a good principle to care for customers' relationships more from human nature perspectives than from technology-oriented considerations. Furthermore, in the aspect of organizational support, skilled and knowledgeable e-CRM personnel are some of the most important impacting factors. The results of this research can provide meaningful insights for service sector practitioners in Taiwan and can be summarized as follows: The results of the analysis show that the construct organizational support exerted the most significant impact on the CRM results. The technological construct also shows a positive impact that refers to peer pressure but is not significant. It is observed that peer pressure can contribute to the adoption of CRM, but that is not directly related to the results (Chang et al., 2005).

The model was applied to 136 companies in Taiwan and the variables are:

- Use e-CRM technology: integration and analysis of customer information.

- It has administrative support: expert staff, organizational learning and knowledge management clients.

- The surrounding pressure: competitiveness and power of customers.

- CRM results: customer loyalty, efficiency, channel management and innovation.

The priority factor model for customer relationship management system success
Roh et al. (2005), arise as main variables of the model:

- CRM Initiatives: setting processes, information quality and support system.

- Intrinsic factors: efficiency and satisfaction.

- Extrinsic factor: profitability.

The sample consisted of 234 insurance companies in Korea and we report the main results, the model reliability data support and validate the proposed constructs. It was found that the CRM Initiatives (setting processes, information quality and support system) propounded by Roh, do not directly impact on the profitability, but through the mediating effect of the efficiency variable both intrinsic factors act as intermediate variables.

Problematic of CRM in the Mexican Hotel Sector

In Mexico, unfortunately it has not been possible to find studies analyzing technological development in the hotel sector and in particular devoting attention to CRM.

However, after collecting information from Mexican companies that specifically develop CRM software, it is observed that the degree of implementation of CRM systems is relatively low. There are a few Mexican hotel companies that use CRM systems but none are SME.

Edmundo Robert H. founder and CEO (Chief Executive Officer) of PRAXIS (1996), a Mexican company that has a presence in several countries, specializes in mobile computing, electronic billing and mobile platform mentions "We are still a little behind the American market, but each time less. Now the concept of CRM is being integrated into Internet strategy for the Mexican market". Moreover, today it is possible to integrate tools of different companies, that is, it is possible to implement a CRM of a company to an ERP (Enterprise Resource Planning) or the "back office" of another.

Victor Vargas, CEO of Ampersand (2015), discusses the relationship between CRM and Loyalty Programs and mentions "Ampersand offers services and solutions for loyalty programs in Mexico to companies like "Grupo Posadas" and "BANORTE", with its own methodology and technology of Oracle CRM and Oracle Siebel Loyalty. In terms of budget and profitability, he said that if 1% is the average, shared programs can go up to 5%. Mexico varies by industry and has shown that retail is between 1% and 2%. It should be noted that the budget has to be measured with results and benefits".

Doble Group, LLC (1990) is a consulting company focused on improving business results through CRM solutions and organization alignment, its processes and equipment for

success. Mariano Doble is the CEO of Doble Group and mentions "Every day more companies recognize the need to be more competitive in their sales processes, marketing and customer service. Entrepreneurs and executives have realized they need to improve their processes and adopt technologies that help differentiate from their competitors. The need for CRM has become a strategic priority for many Small Medium and Large businesses".

Mariano Doble also says "There are three fundamental challenges for SMEs with CRM: The first challenge is the perception that CRM systems are very expensive because they are accustomed to traditional technologies that require large investments. The second challenge faced is the allocation of resources to review and improve its internal processes and methodologies to define clear priorities in automating their processes to implement CRM. And the third is management making transformational changes and then requiring the implementation of CRM to ensure long-term sustainability".

It is also important to mention that the Ministry of Economy in Mexico (SE, 2014), in recent years, mentioned that international tourism shows significant changes regarding their preferences: i) there is a tendency to look for short trips and low cost, ii) use of new technologies information in planning trips and iii) travel patterns that combine business and pleasure.

Regarding the degree of penetration and development of CRM systems in the hotel industry, it can be said that there is still widespread implementation in this sector. Despite the many advantages that CRM can offer the hotel industry, there are companies that have effectively implemented the system, but they feel they are still at a preliminary stage of development, being aware of not making use of the full potential CRM offers delays achieving competitive advantages.

Obstacles to the implementation of CRM

The implementation of a CRM strategy carries many advantages for the company (Widlund, 2003; Renart, 2004; Xu and Walton, 2005; Rigby et al, 2002; Chen and Popovich, 2003). These authors point out that the launch of an initiative of this kind has led to increased competitiveness for many companies, which has resulted in higher revenues and lower operating costs. Reichheld (2000) has analyzed the economic effects arising from increases in retention and customer satisfaction in various industries, obtaining conclusive results: an increase of 5% retention rate implies an improvement in profits from 25-100%. Therefore, we can say that the development of a CRM strategy seeking to increase loyalty and customer fidelity by improving the process of value creation will be beneficial for business results.

However, despite there being successful cases of CRM, there are also companies that show high rates of failure when implementing such strategies (Xu and Walton, 2005; Rowley, 2002; Bolton, 2004; Rigby et al, 2002; Starkey and Woodcock, 2002).

Xu and Walton (2005) also note that CRM systems have not had the transformative impact expected by businesses and promised by the software industry. Bolton (2004)

argues that most CRM implementation pioneers seem to have failed, citing as grounds the fact that companies have not carried out the changes in strategy and business processes required by an initiative of this type.

Starkey and Woodcock (2002) insist with this idea noting that while global CRM spending has tripled in recent years, competencies in the field of customer management not only have not been increased by the investment, but in some cases have even been hurt. Rigby et al (2002), considering statistics from various consultants, even state that 55% of CRM projects launched do not get the expected results and that rates of corporate satisfaction with this strategy are quite low.

The various causes of these disappointing results have also been analyzed in many papers (Rigby et al. 2002; Renart, 2004; Rubio, 2003; Starkey and Woodcock, 2002). Thanks to this analysis one of the main causes can be highlighted as the lack of integration of CRM in the overall strategy, demonstrating it as a purely technological tool, regardless of the different organizational and cultural changes involved.

Therefore, taking into account the above work and considering that there is still no clear understanding of why some initiatives succeed while others fail (Roh et al, 2005), a systemic model that aims to bring together the main variables is proposed that determines the success of CRM.

PROPOSAL FOR A SYSTEMIC MODEL

Therefore, taking into account the above work and considering that there is still no clear understanding of why some initiatives succeed while others fail (Roh et al, 2005), a systemic model that aims to bring together the main variables is proposed that determines the success of CRM. To define this model, special attention is paid to cases shown to be successful in implantation.

Model Description

To make the proposed defined model a delimitation basis will be taken which includes people and technology variables. Several authors agree that CRM as the construct is composed of many components such as: dimensions, people, processes and technology, depending on its success for the correct alignment of the same (Crosby, 2002; Crosby and Johnson, 2000; Chen and Popovich, 2003).

Furthermore, knowledge management is considered as conclusive for a successful CRM strategy, allowing the acquisition and dissemination of customers' knowledge throughout the organization so that relations with them improve, and increased customer value is created with other stakeholders. Therefore, based on successful cases considered in a previous section of this paper, and the analysis of models such as (Zablah et al, 2004; Bueren et al, 2005; Tiwana, 2001) and being an essential part of the systemic, it is considered appropriate to include knowledge management as an explanatory variable in the proposed model.

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Since CRM is an emerging marketing concept that has its roots in this discipline, it is also desirable to incorporate into the model a variable that refers to the philosophy of market and customer orientation that a company must possess to successfully implement a strategy of this type.

The model proposed in this research presents a systemic character, as it captures and integrates four variables considered key components in the success of a comprehensive CRM strategy, which are described below.

Organizational Variables of an Enterprise Viable
These collect the human component in the hotel business, as they are located in the organizational structure and the allocation of resources according to this structure is established. Do not forget that to decide on a CRM strategy involves changes in both the hierarchy or organizational entity, and business processes. Therefore, aware of the crucial role played by people not only in the acceptance of a new technological system, but also in accordance with a new business philosophy, which is CRM, for the Organizational Variables it will be necessary to measure them through different metrics which will correspond with the attributes expected from the Enterprise Viable in its 5 basic subsystems: Operation, Coordination, General Management, Strategic Planning and Administrative Council.

Technological Variables
Although it is acknowledged that IT plays a key role in making the implementation of a strategy of this kind possible, Technological Variables include aspects such as: possession of adequate infrastructure information systems type ERP (Enterprise Resource Planning), hardware and software appropriate to serve customers, information systems that are integrated across various functional areas or that the company maintains database information for all customers. If there are no ERP information systems, interface functions CRM module will not efficiently.

Customer Centered Variables
This variable must include attributes such as customer-centered approaches, adapting products and services to customer requirements, and a direct approach to customers. A CRM strategy is not possible without a client-centered approach that should seek the generation of a higher value by customizing the offer.
Chen and Ching (2004), say that market orientation can be considered as the generation, dissemination and responsiveness of market intelligence and implies that the various departments involved in meeting the needs of customers share the available information. Thus, it can be assumed that customer orientation is a necessary prerequisite for the implementation of CRM strategies.

Knowledge Management
This variable is considered a key determinant of success for the implementation of a CRM initiative, considering the work of Zablah et al (2004) which perceives knowledge management as a main thread of a CRM strategy.
Also, it can be said that there is a strong relationship between the disciplines of knowledge management and CRM, based on works such as (Rowley, 2002; Tiwana,

2001) that focus on this relationship. These authors emphasize that for CRM to manage effectively, companies must develop processes related to knowledge management capabilities as these being difficult to imitate can become a potential source of competitive advantage. Therefore, it can be seen that CRM processes are based on knowledge-intensive (Bueren et al, 2005).

As described the proposed model focuses on four variables that are related in a systemic way and also cannot think of a CRM strategy if it is not within an ERP strategy. Below in Figure 1 a diagram Holos, to visualize and identify in a simple way as is seen integrated model.
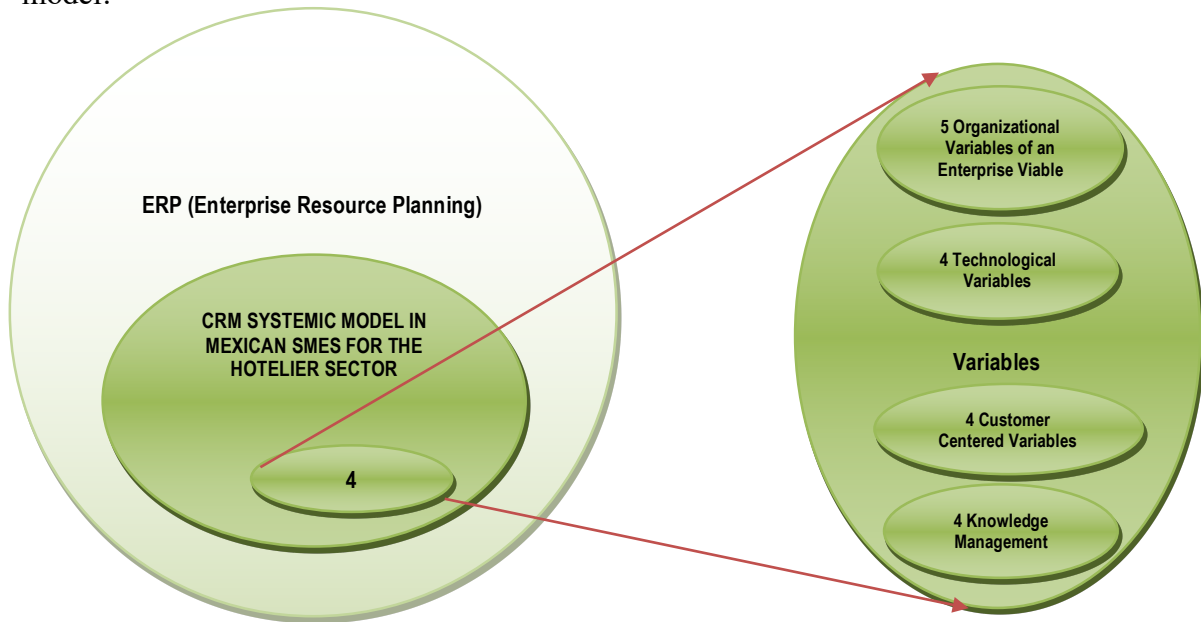
Figure 1 Diagram Holos of the variables that integrate the proposed systemic model [Own Source]

Thanks to other jobs that exist at international level, there have been multiple benefits that CRM can bring to the hotel industry and the factors that influence successful implementation. Regarding the degree of penetration and development of CRM systems in the hotel industry, there is still no widespread implementation in this sector. It is possible to consider that the sector is at an early stage in its adoption and hotels that have actually launched initiatives of this type, say they are aware of not harnessing the full potential that the CRM could offer. Also it can be mentioned that a higher degree of implementation of CRM is found in large hotel chains of SMEs hospitality, affirmation that can be contrasted when an empirical study is conducted.

The following table summarizes analyzed studies that propose empirical models; problem type and indication of the variables considered in contrast with those chosen in the proposed model (see Table 2).

Table 2 CRM papers posed models by type of problem and proposed variables for each

Papers	Problem Type	Model Variables										
		Adjustment Process	Information Quality	CRM System Support	Efficiency	Customer-centered (satisfaction and loyalty)	Profitability	Orientation to ICT	Market orientation	Knowledge Orientation	Organization Oriented	Impact and Results CRM
Chen and Ching (2004)	Insurance companies in Korea					✓		✓	✓			✓
Chang et al.(2005)	Companies Sector Services in Taiwan		✓		✓	✓		✓	✓	✓	✓	
Roh et al.(2005)	Financial Sector companies in Taiwan	✓	✓	✓	✓	✓	✓	✓				
This work (2015)	Mexican hotel sector	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

The second and third columns of Table 2 show that one of the papers considering variables was not taken into account by the other models, and this may be because none of the work is focused on the same type of companies. It should also be mentioned that none of the above work relates to Mexican hotel companies; in fact, the nature of the problems solved with CRM and in which variables arise and displayed in the table are for entities of a different nature. Only one of the studies considered profitability to maximize profits in the company. All papers were interested in customer satisfaction.

It is seen that some of the variables included in the analyzed models can be considered as having been contemplated for the proposed model, which is highlighted as follows:

• The Organization Oriented Variables are interested in the quality of information, the impact on market share and profitability and adjustment of business processes for the implementation of the CRM strategy.

• Customer Oriented Variables must take into account the quality of the information and documentation and adequate safeguard.

• Variables technology-oriented, consider the use of a CRM-based tool to analyse customer information, satisfy and maintain their loyalty, in turn making positioning of the organization in the market.

• Knowledge Oriented Variables are the determinant of success; knowledge of the processes of the organization, its employees, customers, and the market is everything.

There are several works devoted to analyzing the success or failure of CRM strategy and this work highlights the analysis of what constitutes the key factors for the smooth running of a strategy of this kind. A systemic model has been built that includes four variables: organizational, technological, knowledge and customer-centered.

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The next step is to check the proposed systemic model for a sample of companies in the Mexican hotel industry. The choice of this sector has been due to its strategic importance in the economy and because the shortage of empirical research indicates that there is a need to further investigate this issue. Furthermore, according to a brief survey through PROMEXICO (2014) there is a degree of development and implementation of CRM in Mexican hotels lower than expected (only the big chains have been or are being implemented). That is why the future experimental study has presented two parts: one that allows monitoring the level of penetration of CRM, performing it in groups of hotel companies based on their progress in CRM, and a second part which will be the validation of the proposed systemic model in those hotels that want to implement the strategy.

One limitation of this research is that it is a first version of the model, and in the validation phase it is expected that the definition of variables and metrics established at this time will be debugged.

Metrics applied to the model

Because it an ICT tool, which should be evaluated, the Mexican standard NMX-I-055/01-NYCE-2006 describes the metrics used to measure the proposed system model consisting of two parts as suggested by the standard: (a) internal and external quality and (b) quality in use, thus presenting a preliminary level metrics for the four variables (see Table 3).

Table 3 Internal, External and Systemic Proposed Model Using Metrics

METRICS INTERNAL MODEL			
VARIABLES	SUBVARIABLES	METRICS	PURPOSE OF THE METRICS
Organizational	Adaptability	Functional Adaptation	Does the company have the qualified staff and resources necessary to succeed in CRM strategy?? Is there commitment and full support from senior management?
		Scope of the functional implementation	Is there coordination and functional integration? Is the organizational structure designed according to a client-centered approach?
	Exactness	Expectation to the accuracy	Are there acceptable differences between actual results and reasonable expected with the implementation of the model?
		Accuracy in the calculation	Are training programs designed for staff to develop the skills required for proper management of customer relationships?
		Accuracy	Has the company established clear business objectives in relation to the acquisition and retention, as well as the development and revival of relations?
	Interoperability	Facility in the data exchange	How the correct exchange is made to transfer specific data to be implemented?
	Access Security	Auditable access	How complex is the audit path regarding the data?
	Compliance Functionality	Compliance Functionality	How accomplished is the product functionality to regulations, standards and conventions applicable? Is the employee performance measured and rewarded based on the detection of customer needs and satisfaction, through adequate service?
METRICS EXTERNAL MODEL			
Technological	Maturity	Failure elimination	Does the company have an adequate infrastructure of information systems and how often the faults in the information exchange are interrupted?
		Maturity test	Does the company have the right software to serve its customers and is a product that has been tested successfully?
	Fault Tolerance	Preventing breaks	Are the information systems of the company integrated across various functional areas? How often is it possible to prevent the product causing a complete shutdown of the production environment (service uptake and loyalty) CRM?

		Failure prevention	How often can control failure patterns avoid serious flaws and criticisms that waste time and money of the company?
		Preventing wrong operation	Is the individualized information about each customer available at all points of contact? How often can implement functions avoid incorrect operations?
	Recovery	Ability to recover	How capable is the product or CRM tool to reset itself after an abnormal event?
		Effectiveness of restoring	How effective is the ability to restore CRM product?
	Reliability Compliance	Reliability Conformity	Does the company have the right hardware to serve its customers? How pursuant product reliability is selected for CRM applicable regulations, standards and agreements to the hotel company?
Knowledge Management	Understanding Facility	Integrity of the description	Is the company able to provide a rapid response of knowledge about customers that has been integrated throughout the various functional areas? How often can it be quickly understand what should be offered to the customer after reading the description of their needs and / or requirements?
		Understandable activities	Is the company able to make decisions quickly thanks to the availability of knowledge about customers? Does the company understand what the customer requires and what should be provided?
	Facility to Learn	Easy to learn to perform tasks in use-oriented knowledge of customer needs	Does the company understand the needs of its customers through its orientation to knowledge and how often the customer may be offered options that can be implemented efficiently?
		Effectiveness of documentation about the customer	How often the company can provide information about products and services enabling quick and appropriate interaction with customers after using documentation and / or help from CRM?
	Operability	Operational consistency in use	Does the company promotes awareness among its employees and how consistent is shared is information about customers, their needs and / or preferences?
		Correction of error in the use of information	How often the company can easily recover from an error or repeat options for customer satisfaction?
		Recovery using an operational error CRM	How often the company can recover from a bad situation involving the possible loss of a customer?
		Facility of adaptation	How often the company can easily adapt the operating procedures of CRM for their convenience?
		Reduced operating procedure	Does the company provide channels that allow interactive communication with clients and how often can they reduce the operating procedures of CRM at their convenience?
	Attractiveness	Attractive interaction	How attractive is the presentation of the product and/or service offered by the hotel company to the customer?
QUALITY USING THE MODEL			
Customer Centered	Customer Behavior in Time	Interest	How often can the tasks be performed satisfactorily over a given time period for the company to offer products and services tailored to the needs of customers services? Is there a customer centered approach and continues competition?
	Using Resources retention and customer loyalty	Using material resources	Does the company strive to discover the needs of customers making use of material resources without causing inefficiencies or loss? Does the company offer products and services tailored to the needs of customers' services?
	Conformity Efficiency of the hotel company	Conformity Efficiency	How efficient is the company to discover what customers want, allowing them to modify the characteristics of a product or service, the departments involved to get it done coordinated within applicable regulations, standards and conventional efforts?
		Complexity modification	Is it responsible for monitoring the customer information through the CRM strategy and can easily make necessary adjustments or solve a problem? Through interaction, Is the company able to customize their services towards customers?
	Maintainability Compliance Customer by Company	Maintainability Conformity	How is the maintainability of the customer within the hotel company, based on regulations, standards and conventions? Does the company set targets for customer satisfaction and measure their achievement?

Table 3 metric proposals will be refined and validated when the practical study is conducted in Mexican hotel SMEs where the appropriate Likert scale must be included for companies to evaluate the model.

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PRELIMINARY RESULTS

This research wants to take a step toward a CRM success story in Mexican hotel SMEs. We have succeeded in providing a systemic definition of this strategy and described variables that determine our success within a proposed systemic model.

It has been found that in spite of CRM levels of implementation internationally, in Mexico there is a delay in the face of such execution and development and now they are producing increased rates of implementation using that strategy.

Preliminary results show that customer loyalty, organization internal processes and efficiency, knowledge management and ICT are fundamental to the success of a CRM strategy in the Mexican Hotel Sector.

CONCLUSION

This research analysed the advantages of a CRM Systemic Model in Mexican SMEs for the Hotel Sector. It has managed to affirm that technology and organizational support have a positive impact on the performance of CRM. Market pressure for Mexican hotel SMEs can contribute to the adoption of CRM. Within the technological context, it is sufficient to consider the integration of CRM technology in the analysis of customer information. As for the organizational context, it is necessary to involve the adoption of CRM personnel for appropriate learning and to detect market customers, using this knowledge to ensure their loyalty. Finally, the competition and the impact on the environment in which the Mexican hotel SMEs are located must be examined.

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