CRM in Education Institutions- A Study with Special Reference to Student life cycle in management affiliated to Bangalore University

S.Harish, Dr.T.V.raju

Abstract— **The primary objective of the Research was to determine the extent of adoption of Customer Relationship Management (CRM) strategies in undergraduate (UG) management institutions for managing student life cycle. The research is eventually aimed to assess the various issues and challenges related to the adoption of CRM and the likely benefits the colleges can get out of it. But, similar studies in Indian scenario especially with University affiliated Management colleges is rare. This study is precisely addressed towards this. This study has used both descriptive and inferential statistics for data analysis. Eighteen hypotheses are formulated in this study covering various critical aspects of CRM adoption. Appropriate statistical techniques used in the study are Linear Regression, single sample and independent sample t-tests, Chi-square tests, and paired sample t-test. The research results showed that the CRM implementation help colleges to manage the student life cycle more effectively and improves the overall student experiences with the institution. This eventually benefits the colleges in various aspects resulting in increased student referrals, better admission quality, reduced student recruitment cost among others. It is therefore recommended that educational institutions should adopt effective CRM strategies to achieve student satisfaction.**

Index Terms— **Customer relationship management, Student satisfaction, Student life cycle management.**

I. INTRODUCTION

   This study attempts to examine the relationship between CRM service and students' satisfaction through various moderating factors. Furthermore, the study also attempts to analyze critical models in CRM that contribute most to the students' satisfaction.

Maintaining customer satisfaction is the core of every business philosophy and objective which focuses on the creation of worth for customers, forestalling and managing customers' expectations, and signifying capacity and responsibility that will satisfy customers' needs (George, Emmanuel, and Christiana, 2012). The delivery of high-quality services and the satisfaction of customers are two critical factors in the growth and development of every organization (Dominici & Guzzo, 2010). Berkowitz (2006) pointed that the whole essence of business is customer satisfaction. Therefore, the delivery of high-quality service is paramount to achieving sustainable organization's performance.

The critical point to be noted here is that whether "student"

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can be considered as customer. Considering student as customers has created a lot of intellectual debate among scholars. A number of scholars have been able to adduce the reasons why students should be regarded as customers (Hwang & Teo, 2001; Kotler and Fox, 1985; Reavill, 1998; Robinson & Long, 1987). It has been scholarly supported by the above researchers and authors that student can be indeed considered as customers for all commercial purposes.

Student life cycle management in the education sector, especially the Government or privately owned education institutes / Universities in India, have witnessed huge issues with respect to student dissatisfaction. The effect of these student dissatisfaction on the economics of the colleges and academic programs, and also on students' learning can better be imagined than described earlier. Edinyang and Ubi (2013) stated, "This has always subjected the students to pitiable conditions, disrupting academic programs, giving students' undeserved extension in their study years, poor students' focus on academic programs and poor teacher student relationships amongst others". Consequently, the academic performance of the students has comparatively become very low due to the disconnect between students and colleges. As a result, "products" that are ill equipped in both character and learning are turned out to the society. Educational institutions in India have thus suffered tremendous setbacks even in managing relationships with their alumni, who in fact act as the brand ambassadors of the institution. This aspect can also lead to problems that affect student life cycle in the institutions / university which in turn discourages student's willingness to recommend their educational institutions to others.

It is observed that today's Indian colleges are mere shadows of their past, in terms of academic standards. Politicians, some educational bureaucrats, college administrators and teachers/instructors/lecturers/professors have sacrificed quality education due to their insatiable desires to accumulate wealth.

In general, Indian educational institutions are characterized by poor infrastructures which lead to poor customer relationship and student dissatisfaction. Today's educational institutions are not able to maintain their basic needs, that is, the laboratories, libraries, accommodation facilities available for students, lecture theatres are no theatres and the lecture halls are in a very deplorable condition (Benin, 2013). Specifically, the libraries are not able to subscribe current books and periodicals. All these lead students to contemplate about the future security and existence of these educational institutions and their ability to provide quality education. Adding to this, poor CRM in Indian educational institutions leads to student unrest and dissatisfaction.

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1.1 Concept of Customer Relationship Management

The term "*Customer relationship management*" was first used by management scholars such as Peter Drucker and Theodore Levitt in the 1960s (Venoos & Madadiyekta, 2005). CRM, which seeks for the customers' conception of an organization, includes individuals, processes, and technology. CRM has three perspectives, including information technology perspective, the customer life cycle perspective, and business strategy perspective (Wali & Nkpurukwe, 2008). Wali and Nkpurukwe (2008) defined CRM as the process of customer acquisition, customer retention, customer extension, and the delivering of a sustainable competitive advantage. Peppard (2000) posits that CRM aims at creating an emotional connection with the customer, understanding customer needs, differentiating between customers via market segmentation and performance analysis of customer loyalty. Ozuru and Kalu (2009) defined CRM as the function of building trust, bond, or connection between an organization and a customer with the aim of influencing a repeat purchase. Ogbadu and Usman (2012) posited that CRM deals with customer data management and the management of customer touch to maximize customer loyalty by building and maintaining profitable customer relationships and delivering superior customer value and satisfaction. CRM can also be seen as a business strategy which identifies profitable customers and prospective customers and devoting time and attention to expand such relationships with those customers (Kotler & Armstrong, 2008).

1.2 Concept of Customer Life Cycle Management

One major strategic difference between CRM and customer life cycle management (CLM) is the element of time. CRM can be an act at one particular contact point with the customer, whereas customer life cycle management is a measurement over time. It was also observed from literature that customer life cycle management is a static entity and is more based upon a single measurement (which incorporate multiple metrics) than a philosophy (Edward, 2002). Without practicing CRM whatsoever, a company can take various measurements of its customer life cycles and find ways to improve or manage them better. CLM is also non departmental, that is it incorporates all interactions with customer throughout that customer's life. However, as a result of the application of business techniques in the management of undergraduate management institutions in this modern time, student life cycle management has also attracted attention by different scholars. In fact, student life cycle management is the same as customer life cycle management. This position has created a lot of intellectual debates among scholars. Some scholars viewed students as captive audience whose voice should not be heard, while this study supports the views of scholars that believe that students should be treated as customers and their interests should be recognized in the management of undergraduate management institutions (Hwang & Teo, 2001; Kotler & Fox, 1985; Reaville, 1998; Robinson & Long, 1987).

1.3 Relationship Management Theory

The term "*relationship management*" refers to the process of managing the relationship between an organization and its internal and external factors. Ledingham (2003) defined an organization–public relationship as "the state which exists between an organization and its key publics in which the actions of either can impact the economic, social, cultural or political well-being of the other" (p. 184). Moreover, the concept recognizes relationship as the core focus of public relations. A strategy engaged by an institute in which an endless level of arrangement is retained between the institute and its target market. Relationship management is between a business and other businesses (business relationship management) and between a business and its customers (CRM).

The aim of the CRM is to build a relationship between education sector institution and its target market, but not transactional relationship. Customers who feel that an organization responds to their want and needs will continue to use the products and patronize the services that the organization offers. Furthermore, sustaining a level of communication with customers enables the organization to ascertain potential causes of pricy problems before they happen.

1.4 Stakeholder Theory

The stakeholder theory, which is a business theory, states "the purpose of a business is to create as much value as is possible for the stakeholder." The theory addresses morals and values that should be exercised when managing the organization. Based on the conceptual, theoretical and empirical clarifications discussed earlier. An institute of education has many stakeholders other than students. Say for example like alumni, regular teachers, visiting faculty, corporate companies who provide projects and employment etc.

1.5 Customer (student) Satisfaction theory

Customer satisfaction is the core of every business philosophy and objective which focuses on the creation of worth for customers, forestalling and managing customers' expectations, and signifying capacity and responsibility that will satisfy customers' needs (George, Emmanuel, and Christiana, 2012). The delivery of high-quality services and the satisfaction of customers are two critical factors in the growth and development of every organization (Dominici & Guzzo, 2010). Berkowitz (2006) pointed that the whole essence of business is customer satisfaction. Therefore, the delivery of high-quality service is paramount to achieving sustainable organization's performance.

Considering student as customers has created a lot of intellectual debate among scholars. A number of scholars have been able to adduce the reasons why students should be regarded as customers (Hwang & Teo, 2001; Kotler and Fox, 1985; Reavill, 1998; Robinson & Long, 1987).

II. LITERATURE REVIEW

2.1 Customer Relationship Management

Customer relationship management (CRM) is an enterprise-wide initiative which focuses on developing and influencing an in-depth view of customers across enterprise

applications and business units. It assures to provide seamless integration of multiple business areas that reach the customer – marketing, sales, customer service and field support – through integration of people, process and technology (Satish et al., 2002). It is a combination of business processes and technology which seeks to understand a company's customers from the perspective of who they are, what they do and what they like (Ryals and Knox, 2001). Along with other enterprise systems, such as enterprise resource planning (ERP) systems, companies are adopting CRM technologies to strengthen customer interactions and shifting their focus from business efficiency to business effectiveness (Sheng, 2002).

2.2 CRM in Under graduation

Under graduation institutions are 'student centric' organizations that encompass a wide range of student outreach and counselling activities such as admissions, academic advising, job placement and more.

While CRM usage is widespread in the corporate sector, under graduation is far behind with CRM implementation (Grant and Anderson, 2002). Universities and colleges may benefit from CRM by improving student-facing processes (Chen and Ching, 2005), personalizing communications with students (Karimi et al., 2001), sharing information among departments (Chen and Ching, 2005), and increasing student retention and satisfaction (Bradshaw and Brash, 2001).

2.3 Student Life Cycle

Significant changes in the expectation of students contribute to the relevance of relationship management strategy (Conant, 2002). While it might seem counterintuitive to view students as customers, changes in the under graduation sector necessitate this shift in thinking. Viewed from the CRM lens, the concept of customer life cycle can be mapped to the stages that a student progresses through when considering and using the services of a learning institution to form the student life cycle. Within a student life cycle, a student progresses through the following stages:

Suspect ⇒ Prospect ⇒ Applicant ⇒ Admitted ⇒ Enrolee ⇒ Alumni

- **Suspect:** A suspect is any student who might be a potential candidate for the college.
- **Prospect:** A prospective student is at the information gathering and opinion forming stage.
- **Applicant:** A student is an applicant when he/she makes the decision to join the institution.
- **Admitted:** A student is admitted when the college makes a decision to accept the student.
- **Enrolee:** This is the stage where students become a part of the institution.
- **Alumni:** At this stage, students who are satisfied with their academic experience will develop long-term loyalty to their alma mater.

In view of corporate CRM activities, college student enrolment management activities of converting suspects to the admitted represent the marketing components of CRM, the conversion of admitted students to enrolees represents the component of sales and the continuous enrolment and participation as alumni represent the retention and support components. However, student life cycle involves more complex interactions especially during the retention phase as academic programmes and advising, and student life plays critical role in student retention (Tinto, 2005).

III. DEFINITION OF TERMS

3.1 Under graduation

Under graduation is 'education generally begun after twelfth standard, usually carried out at a university or college, and usually involving study for a degree or diploma' (cited in Sen, 2010, p. 8).

3.2 Marketing

Basically refers to the way in which organizations design their offerings to satisfy the demands and desires of target markets by using effective pricing, communications and delivery strategies within these markets (Kotler and Fox, 1995).

3.3 Customer Relationship Management

Rodgers and Howlett (2000) have defined CRM as 'a business strategy which places the customer at the heart of an organization's processes, activities and culture. In this regard, IT applications are the tools which allow organizations to implement that strategy'.

3.4 Information Technology

'IT concerns any device or system that allows the storage, retrieval, manipulation, transmission and receipt of digital information' (Doyle, 2008, p. 41).

3.5 Students

In the study at hand, "students" refer to all those students pursuing their undergraduate management course from any of the affiliated college of Bangalore University.

- *current students;* who are currently studying a full time bachelor course Management in one of the Bangalore University affiliated colleges
- *prospective students;* who can be potential applicants for a full time bachelor course Management in one of the Bangalore University affiliated colleges
- *alumni;* who already have graduated from one of the Bangalore University affiliated colleges

IV. PROBLEM DISCUSSION

The growing importance of relationships in under graduation has encouraged these institutions to start thinking of a systematic way of managing their relationships. In business, managing relationships with stakeholders can be challenging for many organizations since they are involving in different operations and their customers' needs and wishes can significantly vary (Kleinaltenkamp and Ehret, 2006). Similarly, in the area of under graduation in which the primary stakeholders are students (Nicolescu, 2009), the need for an organized system for managing and monitoring the relationships between universities and students is obvious. Pausits (2007) believes that colleges / universities must identify their stakeholders clearly and engage into activities

that reinforce their relationships with these stakeholders by proper integration of *strategy*, *processes* and *people*.

In the meanwhile, the pervasiveness of new advances in IT and communication technology has positively contributed to managing such relationships in universities by enabling them to systematically identify, collect, analyze and satisfy their students' needs and preferences. An example of this utilization can be the 'student lifetime management' (SLM) model that has been introduced by Pausits and Pellert (2007) to plan, form and analyze the relationship cycles of students.

V. PROBLEM STATEMENT

Universities / colleges in Bangalore offer a wide range of programmes and courses predominantly to national and in a smaller extent to international students. According to University sources, the number of free-movers (full programme international students) who applied for studying in Indian universities has had a significant increase recently to the extent that in 2008.

Indian private under graduation institutions are self-financed and get almost no support from government. Moreover, universities and colleges are competing in a tremendously globalized and high competitive environment in offering educational programmes and services as stated earlier.

Thus, it is imperative for Indian universities to take strategic steps and preparations to meet these forces safely. According to what has been reviewed in background section, the IT believes that Indian universities will be able to survive in this critical situation by embracing a market-oriented strategy with focus on establishing effective and long-term relationships with their students.

Not astonishingly, IT can play a facilitating role in this regard. Therefore, having been studied the major in IT and management as well as the novelty of this situation motivated the authors to scrutinize this problem from the IT point of view within the context of CRM.

VI. OBJECTIVES OF THE STUDY

The major objective of this study is

"**To ascertain the adoption of customer relationship management (CRM) practices, its benefits and challenges, among the under-graduate management colleges affiliated to Bangalore University**"

The specific objectives of the research is to ascertain the following:

1. Relation between CRM practices and student's satisfaction
2. Relation between CRM practices and students' willingness to recommend their educational institutions to others.
3. Relationship between student life cycle management and student repeat patronage intention.

VII. RESEARCH METHODOLOGY

A questionnaire survey was conducted between February, 2014 and April 2015 to collect the information required for this study. 82 educational institutions were selected for the study. The respondents for the study were the head of the institutions. In some cases it were Directors of the institute or and in few cases it was Chairmen. The private educational institutions involved were predominantly colleges affiliated to Bangalore University. In selecting the respondents for this study, a complete enumeration method was used. The self-administered questionnaire was in printed format. Of the 82 self-administered questionnaire, 61 were returned and properly filled for a final response rate of 74%.

The sample size of colleges was calculated using the formula $N= ((Z\alpha/_2)^2 * \sigma^2)/ E^2$, where Z is the Z score for 95% confidence interval (1.96), σ is the standard deviation (Rs.15,00,000) of annual CRM budget, and E is the accepted margin of error (Rs.4,00,000) of annual CRM budget.

VIII. DATA ANALYSIS AND INTERPRETATION OF RESULTS

Hypothesis 1

H_0- CRM practice does not decrease the student recruitment cost

H_1- CRM practice does decrease the student recruitment cost

Table 1 CRM practice v/s student recruitment cost

Correlations

		CRM_impl	Admission_cost_reduction
CRM_impl	Pearson Correlation	1	.637[**]
	Sig. (2-tailed)		0.008
	N	16	16
Admission_cost_reduction	Pearson Correlation	.637[**]	1
	Sig. (2-tailed)	0.008	
	N	16	16

[**]. Correlation is significant at the 0.01 level (2-tailed).

Table summarizes the statistical relationship between two variables; Admission cost reduction and extent of CRM implementation. The table clearly shows that the admission cost decreases with the extent of adoption of CRM practice. Increased CRM practice significantly affect the admission cost at 0.05 levels of significance. The p-value is lesser than the 0.05 indicates that the two variables are strongly related.

Hypothesis 2

H0: **Customer relationship management does not help to achieve student satisfaction.**

H1: Customer relationship management does help to achieve student satisfaction.

Table: Regression effects of customer relationship management on students' satisfaction. (*Source*: Field Survey, 2014).

Table 2 CRM adoption v/s Student satisfaction

Correlations

		CRM_impl	Stud_satisfaction
CRM_impl	Pearson Correlation	1	.0380
	Sig. (2-tailed)		.000
	N	61	202
Stud_satisfaction	Pearson Correlation	.0380	1
	Sig. (2-tailed)	.000	
	N	61	202

**. Correlation is significant at the 0.01 level (2-tailed).

PRM: parent relationship management; SLCM: student life cycle management.

Table 2 explained that parent relationship management is significant to student satisfaction, because it made a unique and statistical significant contribution to the model.

Hypothesis 3

H_0-Student life cycle management does not help to achieve student repeat patronage intention.

H_1- Student life cycle management does help to achieve student repeat patronage intention.

Table 3: The Regression effects of student life cycle management on students' willingness to repeat the patronage towards their institution. (*Source*: Field Survey, 2014-15).

Table-3   **Descriptive Statistics**

	Mean	Std. Deviation	N
Stud_rep_patronage	2.7885	1.41985	610
Parent_connect	3.0197	1.41175	610

Table 1 CRM practice v/s student patronage

Correlations

		Stud_rep_patronage	Parent_connect
Pearson Correlation	Stud_rep_patronage	1.000	.717
	Parent_connect	.717	1.000
Sig. (1-tailed)	Stud_rep_patronage	.	.000
	Parent_connect	.000	.
N	Stud_rep_patronage	610	610
	Parent_connect	610	610

Table summarizes the statistical relationship between two variables; student life cycle management and students' repeat patronage intentions. The table clearly shows that the effective management of student life cycle regarding the "parent connect" dimension significantly affect students' repeat patronage intentions at 0.05 levels of significance. This

indicates that institutions with effective CRM strategy, by which they maintain regular contact with parents, has a main impact on students' repeat patronage intentions ($p \leq 0.005$). Table summarizes the relationship between student life cycle management on students' willingness to recommend their educational institutions to others and student repeat patronage intention. It shows that the dimensions quality admission and effective graduate progress monitoring significantly affect student willingness to recommend their educational institutions to others at 0.01 and 0.05 levels of significance, respectively. This indicates that quality admission has a main impact on students' willingness to recommend their educational institutions to others ($B = 0.29$, $p \leq 0.005$), whereas effective graduate progress monitoring significantly affect students' willingness to recommend their college to others ($B = 0.27$, $p \geq 0.005$). A student repeat patronage intention, on the other hand, has a collective significant impact on quality admission, good induction, effective communication and graduate progress monitoring. It implies that students' life cycle management contributes significantly to students' repeat patronage intention.

IX. CONCLUSION AND RECOMMENDATIONS

This study concludes that student life cycle management in the university enhance student's willingness to recommend their educational institutions to others. It was also observed that the presence of effective parent relationship management in the university increases the level of student repeat patronage intention. The study made the following recommendations:

- The type of the UG college management does not play important role in increased inclination of CRM adoption.
- The CRM adoption does not help UG colleges to get better quality students.
- Educational institutions should provide services at a level that exceeds customers' expectations through effective student life cycle management, such as providing quality admission procedures, regularly communicating and carrying along students with regards to activities in the university.

X. SCOPE FOR FUTURE RESEARCH

As colleges under Bangalore University makes it a single sample, there is a need to cover more Universities for generalizing the findings. Hence, researchers can repeat the similar researches in other Universities. Secondly, the role of Information technology in CRM in academic institutions needs to be investigated to ascertain to what extent the CRM activities can be made IT based and alumni.

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