

Scoping Customer Relationship Management Strategy in HEI

Understanding Steps towards Alignment of Customer and Management Needs

B. Khashab, S.R. Gulliver, A. Alsoud and M. Kyritsis

*School of Business Informatics, Systems and Accounting, University of Reading (UK), Henley Business School,
RG6 6UR, Reading, Berkshire, U.K.*

Keywords: Customer Relationship Management (CRM), Strategy, Scoping; Alignment, Higher Education Institutions.

Abstract: Higher Education Institutions (HEI) are complex organisations, offering a wide range of services, which involve a multiplicity of customers, stakeholders and service providers; both in terms of type and number. Satisfying a diverse set of customer groups is complex, and requires development of strategic Customer Relationship Management (CRM). This paper contributes to the HEI area, by proposing an approach that scopes CRM strategy, allowing us a better understanding CRM implementation in Higher Education Institutions; maximising alignment of customer and management desires, expectation and needs.

1 INTRODUCTION

Customer Relationship Management (CRM) means different things to different people, however, despite confused and often conflicting understandings, interest in CRM implementation within Higher Education Institutions (HEIs) has soared. There is increasing evidence that CRM should be managed as a critical business strategy (e.g. Lindgreen et al, 2006; Rigby and Ledingham, 2004), which is of strategic imperative to business success (Bohling et al., 2006). There is, however, no consensus or developed methods demonstrating how customer desires expectations and needs (DEN), and business strategy can be systematically aligned.

By identifying customers, the effective scope of their needs can be defined. By identifying appropriate steps in HEI CRM strategy development can support the creation of superior value to customers. In this paper we aim to better understand existing CRM implementation in HEI. Presentation of materials in this study is as follows: In section 2 we present a literature review that highlights existing discrepancies in CRM implementation. This is followed, in section 3, by a brief explanation of related work concerning CRM, with focus on the HEI setting. We discuss the research methods adopted in section 4, and as a result of practitioner interviews, in sections 5 and 6 we propose a six-step approach, to scope strategy and maximise alignment

of customer and management desire, expectations and needs.

2 CRM DISCREPANCY

To date there has been some confusion, in both commerce and academia, concerning “what CRM is”. CRM can be conceptualised as a strategy, process, capability, philosophy or technological solution (Zablah, et al., 2004), which has led to some significant differences in the perception of what CRM includes. Lindgreen et al. (2006), for example, claims that CRM can be grouped into three main themes (strategic, infrastructure and process). Poornima and Charantimath (2011), Buttle (2009) and Thakur et al. (2006) all consider CRM as a core business strategy, which maximises revenue, profitability, and customer satisfaction; and openly reject the perspective that CRM is nothing other than a technical solution (Payne and Frow, 2005). CRM in this study, and in the context of HEI, is defined as a cross-departmental, customer-centred, technology-aggregated business-process-management strategy that should optimise customer relationships; and yield benefits that span the entire enterprise (Goldenberg, 2000).

Due to the historically high rate of CRM implementation failure, and because of the lack of understanding concerning the scope of CRM, a

number of CRM implementation frameworks have been developed to support practitioners. Gartner (2001) introduced a CRM model called 'The Eight Building Blocks of CRM', which considers eight steps towards success (Radcliffe, 2001), which specifically emphasised the need to focus on the strategic role of CRM. Payne and Frow (2005) proposed a strategic CRM framework that underscored the importance of strategy as the starting point, in order to overcome the shortfall of considering CRM as simply a narrow technological solution. Payne and Frow (2005) state that business strategy and customer strategy alignment affects CRM strategy success. They stress a need to consider business strategy at the starting point to define how the customer strategy should evolve. Thakur et al. (2006) identified seven steps to implementing CRM strategy (i.e. make customers the essential focus of CRM strategy; categorise customers on the basis of their perceived importance; deliver value to prioritised customers; concentrate on strategic capabilities; create strategies that are customer centric; select CRM technology; and implement the CRM strategy). Finally Buttle (2009) defined a five phase implementation framework, which focused on the development of CRM strategy as being key to CRM implementation success. Buttle (2009) defined CRM strategy as "a high-level plan of action that aligns people, processes and technology to achieve customer-related goals." In his strategy stage, he highlighted the significance of establishing the goals based on the prioritised and focused business processes. Buttle argued that strategic CRM is a main customer-centric business strategy that concentrates on spreading customer oriented business culture.

To be effective, as identified by all key CRM implementation frameworks, a CRM strategy must be effectively aligned to the business strategy (Payne and Frow, 2005). However, as customer/management desires, expectation and needs differ (Anton, 1996), it is important to understand and manage the conflict that occurs (Kotorov, 2002).

3 RELATED WORK IN HEI

Higher Education Institutions (HEI) are complex organisations, offering a wide range of services (i.e. teaching, research, knowledge transfer), involving a multiplicity of stakeholders; both in terms of type and numbers. Moreover, customer types vary significantly (e.g. prospective / current students,

parents, alumni, business community, accreditation organisations, government funding agencies, etc.). Unlike most companies, however the output product in HEI is commonly the customer, i.e. a student (Kotler and Fox, 1985). Satisfying the conflicting needs of diverse customer groups and stakeholders is complex.

Daradoumis et al. (2010) highlighted that only limited studies have considered CRM in the domain of HEIs; and that existing studies commonly only consider a limited scope or context within HEI activity (e.g. prospective student activity); which has resulted in solutions that do not consider all CRM solution types (i.e. strategic, analytical, operational and collaborative) (Buttle, 2009).

Seeman and O'Hara (2006), found that implementing CRM systems within the university improves management of customer data process, raises student oriented focus, and increases student retention, loyalty and satisfaction with the university's educational programs and services. Seeman and O'Hara suggested that treating students as customers enables HEIs to gain a competitive advantage; improving capabilities to attract, keep and satisfy its customers via superior value. Moreover, Biczysko (2010) stated that CRM systems can identify students who might drop out. Biczysko claimed that by conducting frequent surveys to measure the student's satisfaction, and reacting immediately to their demands, student retention has been improved; which is of significant financial value to management.

With increasing international competition within the HEI sector, there is increasing pressure to satisfy 'customer' needs, yet limited support is given within this complex sector to CRM strategy development. Our research aims to understand effective CRM implementation in HEIs, by studying existing HEI CRM implementation. This is then used to develop an approach, which can provide insights to institutions that are planning adoption of a CRM solution.

4 RESEARCH METHOD

To better understand CRM implementation in HEI, and thus enable us to define a CRM strategy development approach, we conducted interviews with individuals who had in-depth experience of CRM implementation in a range of UK based universities. By tapping into the knowledge of experienced implementers, we sought to gain an in-depth understanding of CRM HEI implementation

success and failure. The research aimed to achieve two primary objectives: i) To investigate the extent to which HIEs employ CRM strategies, if any, and how these are formulated; ii) To highlight key areas that appear critical to the success of CRM implementation in HEIs.

Universities selected for this study had CRM implementation experience, and the people interviewed were selected from Joint Information Systems Committee (JISC) reports; which feature more than 27 UK institutions websites. Ten semi-structured interviews were carried out with key implementation stakeholders (including one vice chancellor, four project managers, two IT managers, and three CRM managers) taken from six different universities. Data was analysed using the Content Analysis Method (Babbie, 2010), which facilitates analysis and interpretation through the use of structured codes on the basis of the following questions: 1) Did they have a clear CRM strategy? 2) How did they formulate this strategy? 3) What are the critical success factors that affected CRM implementation? 4) How did they define the key stakeholders involved in the CRM implementation? 5) What method did they use to define the stakeholders? The process led to the emergence of six critical steps, justified and elaborated in sections 5 and 6 respectively, which need to be addressed to achieve successful HEI CRM strategic scoping and alignment.

5 APPROACH DEFINITION

Interview data revealed a need to include six key steps, which are: i) Define the CRM output focus; ii) Define relevant customer groups; iii) Contextualise output; iv) Map output lifecycle; v) Define customer group needs/expectation/desires; vi) Quantify and evaluate needs/expectation/desires in context of the business strategy.

5.1 Step 1 - Define CRM Focal Output

70 % of interviewees stated that top management should initiate CRM strategy; and that Customer Relationship Management strategy should align with the business strategy. “We look at our strategic objectives as a university” (Interviewee 4). Interviewees pointed out that it is essential to have “a very detailed understanding of what the corporate business requirements are, and how that might relate to the wide strategy” (Interviewee 7). Interestingly, one of the key factors, identified by 70% of

respondents, was the need to have “a different strategy for different sectors and customer groups” (i.e. specific teaching, research, knowledge transfer outputs, degree level, etc.). Accordingly, to achieve implementation success, each CRM strategy should have a clear focus. In our approach we propose an initial step that defines the HEI output scope.

5.2 Step 2 - Define Customer Groups

If separate CRM strategies are defined for specific HEI output, it is important to define what customer groups relate to that output. 60% of respondents indicated that CRM strategy can only be gained by understanding the bottom line (i.e. stakeholder needs). It is therefore critical to define the primary client(s), yet highlight the interaction of additional secondary beneficiaries, e.g. staff who would not be employed if the output did not exist. A step was therefore added to our approach that defined all customer groups (both primary and secondary), highlighting their role in context of the focal output.

5.3 Step 3 - Contextualise Output

“Most of the goals for CRM systems will be driven by the particular function” (Interviewee 5). Thus CRM strategy should be designed around the strategic functional needs of a specific output focus. To deliver target functionality for specific customer groups, in context of the focal output, it is important that process occurs change at the appropriate point within the organisation. “You have got to understand the overall business processes that you’re trying to satisfy” (interviewee 4). Accordingly it is important to add a step to our approach that scoped the impact of the CRM strategy in context of organisational outputs, i.e. does change need to occur at University, Faculty or School level; thus also highlighting the scope of influence held by different customer groups on the specific focal output.

5.4 Step 4 – Lifecycle Mapping

“It is important not to disregard the output lifecycle when implementing CRM” (Interviewee 3). To understand how customer groups interact with, and influence, the focal output, it is important to understand the lifecycle of contact points (i.e. processes, activities, events and roles) in context of the focal output. Respondent 6 mentioned that different product customer groups need different solutions at different times. “The undergraduate experience is very different to the PG experience”

(Interviewee 6); and hence it is important, when defining the CRM strategy, that the 'as is' lifecycle for the focal output is clearly defined. Accordingly, a step was added to our approach to map 'as-is' activities, events and roles involved in the lifecycle of the focal output.

5.5 Step 5 - Defining DEN

60% of interviewees agreed that it is critically important to consider students' needs and expectations when creating strategic CRM goals. 70% of the respondents highlighted the importance of considering student experience as a pre-implementation requirement. "I don't think you can really set out objectives without taking into account what the students want" (Interviewee 10). Accordingly a step was added to our approach, which captured customer group desires, expectations and needs (DEN).

5.6 Step 6 - Quantify and evaluate DEN

Capturing customer DEN in HEI is substantial to the development of a successful CRM strategy; however customer DEN (bottom up) needs to be balanced against company objectives (top-down). Simply capturing customer DEN does not fully consider issues of practical alignment with the business strategy. Accordingly, a step is needed in our approach where senior management consider customer DEN (bottom-up), and identify i) which DEN will be taken forward, and ii) what quantifiable measurement should be assigned.

6 SCOPING METHOD

6.1 Define CRM Focal Output

The first step of our approach is to identify the university's high level CRM strategic output focus, i.e. the university output where value needs to be added to the customer interaction. As HEI produce multiple outputs (Hashimoto and Cohn, 1997), defining the scope for the CRM strategy is critical to successful resource use and implementation. Top HEI management (i.e. at University level) are therefore required to strategically prioritise what outputs are critical to the University.

The HEI should focus CRM strategy development on or around specific outputs, i.e. to allow top HEI management highlighting what discernable outcomes will be positively affected by

the specific CRM strategy. The focal output should therefore be an output that senior management are interested in strategically improving. If multiple focal outputs are identified by management, then distinct CRM strategies should be created to consider each output. By focusing on outputs we are able to determine the level and scope of implementation within the organisation. By following this first step, senior HEI management will be able to discuss what business outcomes need to be developed; via implementation of CRM systems. By allowing senior HEI staff to define the high-level focus of the CRM strategy, benefits can be justified, the same senior management will also be ready, willing, and able to fund / support resulting CRM projects and solution implementations. In this paper the focal output, used in the example will be the full-time MBA degrees in a business school.

6.2 Define Customer Groups

Numerous studies have described the significant importance of segmentation on the successful implementation of a CRM strategy (e.g. Bligh and Turk, 2004; Rigby et al., 2002). There are numerous stakeholders within the context of any HEI output. Spanbauer (1995) grouped HEI customers into two categories: external (employers, students, community, government, etc.) and internal (instructors, service department staff, etc.). Each stakeholder, in the lifecycle of the focal output, will influence and/or benefit from the output - either directly, as the client, or indirectly via allocation of resource. By simply using a single one-umbrella classification, it is impossible to identify the complexity of HE stakeholder influence.

Accordingly, in the second step of our approach we propose the use of stakeholder capture and categorisation methods (as defined in Liu et al., 2007); which applies organisational semiotic approaches to classify the role and influence of different stakeholders benefiting from the output. Six role categories, defined in Liu et al. (2007), are: 1) Actors, i.e. those that take action that directly influences the outcome; 2) Clients, who receive the consequences of the outcomes; 3) Providers, who provide the conditions to facilitate the deliverables of the outcome; 4) Facilitators, who are the initiators and enablers of an output, and are the ones who solve conflicts and ensure continuity and steer the team towards its goals; 5) Governing Bodies, who take part in the project planning and management planning and supply the legal framework; and 6) Bystanders, who are not part of the project but can

influence the outcome. Staff involved in the provision of the focal output (at faculty / school level), should define how all stakeholders' influence, and benefit from, the delivery of the defined focal output; with each segment classified as a separate customer group. This allocation of roles allows us to define direct and indirect customer groups (i.e. beneficiaries of the given output), and the roles that they take in the focal output lifecycle. In the context of an MBA programme output (see Figure 1), stakeholders might be: Actor - programme director; Client - MBA students, supporting companies; Provider - financial departments, teaching staff, module conveners; Facilitator - Research supervisors, admissions; Governing body - University senate; Bystander: business organisations, community institutions, press agencies, etc. The list of customer groups should categorise all stakeholders involved in the lifecycle of the focal output.

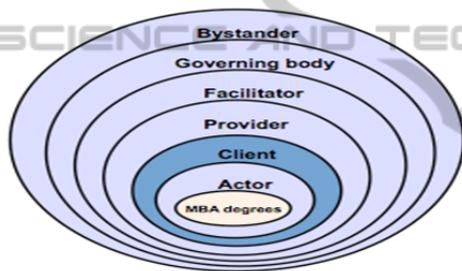


Figure 1: CRM roles influencing HEI output.

The results from this step should be tabulated separately for each focal output. This table should also be, as required, augmented with information concerning stakeholder responsibilities, roles, and job function.

6.3 Contextualise Output

Renner (2000) stated that maximising customer relationships requires a full understanding of their scope. To understand the size of our focal output within the organisation, and the scope of customer group relationships, the third step of our approach maps all customer groups (see section 5.2) in context of the focus output hierarchy. Figure 2 shows a simplified HEI hierarchical structure for postgraduate degrees. If senior management defines 'MBA' as the HEI CRM 'focal output' (see step 1), it is important to note that the MBA is just one of many masters programmes. The MBA is by definition a master programme, yet if MBA specifically is deemed by management as deserving

an augmented level of customer service / interaction, the CRM strategy should not necessarily impact all master programmes; but at the sub-level of MBA specifically. By scoping the influence of the focus output we are able to define the scope of the CRM strategy. In our example, the MBA programme is sub-categorised as being full-time, part-time, executive, or via distance learning. Each of these delivery modes may have a very different model of customer relationship. As we are considering just the full-time MBA it is important to define whether all delivery modes are considered to be included in the scope of a single strategy (i.e. one strategy that will apply to all four cohorts), or whether different teaching modes equates to four separate focal outputs (with potentially separate CRM strategies required for each).

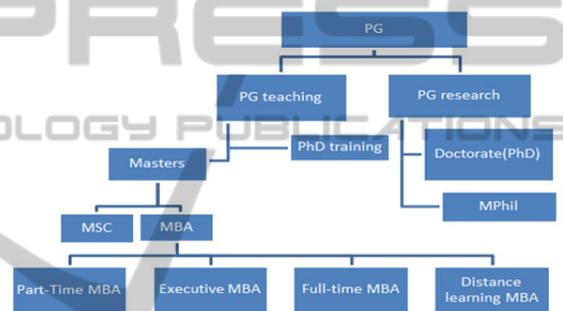


Figure 2: Hierarchical structure for postgraduate degrees to facilitate contextualisation.

Defining the scope of the focal object, in context of the organisation, allows implementation staff to support senior staff to better tailor the strategy definition. Moreover, identifying smaller and smaller groups enables the university to better manage the use of business processes/services with each segment; treating customers in accordance to their values and needs.

6.4 Lifecycle Mapping

The fourth step in our approach relates to the detailed mapping of all customer groups, to current Processes, Activities, Events and Roles (PAER) in the lifecycle of the output (AS IS) – i.e. its current state. O'Rand and Kreckler (1990) claimed that consideration and use of life cycles and life-events supports alignment of disparate viewpoints concerning a single entity or person. Unsurprisingly, the life event concept is being increasingly adopted, by public information service providers, to manage customer experience (Kavadias and Tambouris,

2003). The use of focal object, lifecycle and life-events, allows us to consider the ordering and impact of customer group interaction. Since, within HEI, different stakeholders (i.e. customer groups), interact with, influence and/or benefit from the focal object at different points in the output lifecycle, it is important that information about the focal output lifecycle should be used to structure the relationships of customer groups in context of time.

As the primary client passes through the lifecycle of the output (e.g. Full time MBA students in our example), customer groups will have varying influence / interaction on specific Processes, Activities, Events and Roles (PAER) at each life stage (e.g. recruitment stage). By understanding the layout of these PAER, in context of the output lifecycle, the experience of all customer groups can be understood incrementally; thus building up an interaction model of the whole focal output.

Such a model will help the university determine the customer experience at each stage of the lifecycle; thus highlighting areas that require improvement / development. For instance, within the MBA recruitment stage, measuring applicant experience can help HEI admissions staff to guide students to the correct programme (full-time/part-time/executive); and can be used to define any areas where better resourced is required.

6.5 Defining DEN

Desires, expectations and needs (DEN) are differentiated by a set of subtle definitions (Boradkar, 2010). Needs equate to essential functional requirements, and must be met to ensure that the focal output is viable. Expectations are benefits, attributes and / or outcomes that customer groups expect to exist in the focal output. If an expectation is not delivered in the final output, then the customer would, if left unmanaged, suffer a feeling of disappointment; from which a feeling of discontentment will result (Kano, 1995). Galbreath and Rogers (1999) argued that a business cannot survive if they do not meet their customer needs and expectations. Desires are attributes and / or outcomes that customer groups would like to exist in the focal output, however customers are unlikely to expect all desires to be met.

In HEIs, different stakeholders, e.g. a student and the HEI vice chancellor, will have a very different perspective on essential DENs. For example, in the context of MBA taught programmes, a student is both the client (i.e. the primary customer), but arguably also the output. The student is paying to

experience the output lifecycle, yet course content is developed by academic staff to often align with the wider school teaching portfolio. Accordingly senior management risk prioritising DEN that are of little, or no significant importance to the paying client. Explicit classification of desires, expectation and needs, particularly from client and management perspectives, is important to consider both bottom-up (from client) and top-down (management) desperate views.

We propose that in the fifth step of our approach, four sub-steps are required. Firstly the focal output (i.e. Full-Time MBA) DEN of senior management should be collected and considered against the 'AS-IS' lifecycle, defined in section 6.4. Secondly, senior management should use a Likert type scale, prioritise their DEN; in the paper we will call this **A**. Thirdly customer groups (i.e. relating to full-time MBA) should be asked to assess management DENs from their own perspectives; using a similar Likert type scale; in the paper we will call this **B**. The result can be used to highlight the proposed CRM improvements that will most positively impact specific customer groups. Finally, we suggest that customer groups define a set of additional DEN concerning the focal object; and a weight (on a Likert type scale) to identify their perception of importance.

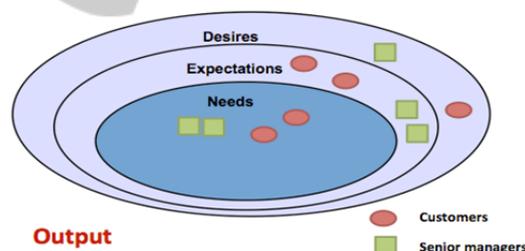


Figure 3: Customer / Management DEN definition.

6.6 Quantify and evaluate DEN

Porter (2010) stated that HEI institutions should focus on the realistic objectives. Management should evaluate which DEN should determine the final set of focal object DEN (see figure 3). As a result of customer feedback, a final set of DEN should be evaluated. It can be argued that the more the HEI knows about its customer groups, and allocates available resources effectively to achieve their DEN, the greater management can enhance business performance and improve customer satisfaction (Kirkby, 2002); which in turn leads to customer loyalty (Anderson and Mittal, 2000). Whilst top managers are ultimately responsible for formulating

and defining the final CRM strategy, feedback and customer DEN (highlighted in section 6.5), however for the sake of customer acceptance, senior managers should consider customer DEN / feedback; particularly in context of the focal output lifecycle. If senior managers disregard customer DENs, and do not view them as being critical, then they risk losing customer satisfaction. If, however, management implement customer DEN, without consideration of business strategy, they risk inclusion of DEN that may not ultimately be viable. Accordingly HEIs need to balance management (top-down) and end-customer (bottom-up) DEN.

If numeric quantification is needed, gap analysis can be used to allow the analyst to gauge customer attitudes towards a given strategy (whether positive or negative). For example, in their SERVQUAL model, Parasuraman et al. (1988) stresses on the importance of measuring, understanding customer expectations, and aligning them to the business processes. Closing expectation gaps between the perceived service and expected services allowing to align customer strategy with the business strategies and services.

To identify and prioritise customer expectation gaps, we suggest adopting an adapted version of Cheng et al.'s (1998) gap analysis method. $Value = (A-B)*A$; where **A** is the management strategic score, and **B** is the defined customer relevance score. If the customer score is less than the management score, the value will be positive; implying that the specific DEN is more important to management than the customer group. If the customer score is more than the management score, then the value will be negative; implying that a DEN is more important to the customer than management. To reflect the strategic importance of the specific DEN value, we magnify the sum by the management strategic score. The greater the level of importance placed on the DEN by management, the larger the final value.

The goal of this step is to view the entire spectrum of DENs, and decide which to consider and which to ignore. Such information facilitates senior management to focus on the key DEN that supports the business strategy that will be accepted positively by customers. A wide gap between management and customer requirements indicates an absence of alignment. Where value is deemed to be negative, the viability of client DENs must be assessed by senior managers.

In the case of our full-time MBA focal object, students might expect regular networking with alumni students. Management might have given this service a priority of 3 (i.e. A) on a 7 point Likert

style scale. If MBA students, however, give this service a priority of 7 (i.e. B) on a similar 7 point Likert style scale, the service value is currently (-12); $Value = (A-B)*A$. As this is a negative number management can instantly see that a low focus on this service risks resulting in dissatisfaction from students. It is then up to management to decide whether resource can be viably invested.

Gap analysis quantifies the importance of DEN, and allows managers to assess the plausibility of each set of DENs; i.e. decide which should be carried forward strategically. Moreover, gap analysis supports quantification of each DEN, allowing management to quantify CRM outcome.

The scoping strategy that we propose seeks to align business model imperatives with customer DENs, and to check the appropriateness of the strategy as a tool for prioritising, segmenting, and quantifying DENs, as a result of ranking and mutually defined priorities. If customer and senior management DENs are aligned, then the strategy adopted will ideally implement strategically important DEN, whilst providing customers with what they want.

7 CONCLUSIONS

In a complex organisation, such as the HEIs, in which multiple stakeholders have very different sets of needs, expectations, and desires, the challenge of implementing CRM solutions becomes particularly great. In this paper, we develop a scoping approach to help align the CRM strategy of management with the desire, expectation and needs of customer groups. Our method builds upon practical evidence from the results obtained with interviews, which were systematically synthesised. We investigated HEI CRM implementation issues, placing focus on institutions that have implemented CRM, with the aim of understanding effective steps in the development of HEI CRM strategy. Focusing on and understanding customer groups' desires, expectations and needs can be used to support effective strategy creation; which in turn, improves a HEIs unique position.

It is believed that this paper is of significant value to both CRM researches and practitioners; when developing and implementing CRM strategies within HEIs. Future research will focus on the iterative implementation of our CRM strategy-scoping approach; to help us identify the pros and cons of the proposed approach in maximising the alignment of customer and management DEN.

REFERENCES

- Anderson, E. W. and Mittal, V., 2000. Strengthening the Satisfaction-Profit Chain. *Journal of Service Research*, Volume 3, No. 2, pp.107-120.
- Anton, J. 1996. Customer Relationship Management: Making Hard Decision with Soft Number, *Prentice Hall, Englewood Cliffs, and New Jersey*.
- Babbie, E., 2010. *The Practice of Social Research* (12th Ed.). Wadsworth: Cengage Learning. p. 530.
- Biczysko, D., 2010. CRM solutions for Education. In: P. Jaluwiecki and A. Orłowski, ed. 2010. Information systems in management, *Distant Learning and Web Solutions for Education and Business*. WULS Press, Warsaw, 1st edition, pp.18-29.
- Bligh, P. and Turk, D., 2004. CRM Unplugged Releasing CRM's Strategic Value. *John Wiley & Sons, Inc*.
- Bohling, T., et al., 2006. CRM Implementation Effectiveness Issues and Insights." *Journal of Service Research* 9(2), 184-194.
- Boradkar, P. 2010. Designing things: a critical introduction to the culture of objects, Berg.163-164.
- Buttle, F. 2009. Customer Relationship Management (Paperback). 2nd Edition, Butterworth-Heinemann.
- Cheng, B. W. and Lin, S. P. and Liu, J. C., 1998. Applying quality function deployment to improve the total service quality in a Hospital's Out-patient Department, *Proceedings of National Science Council: Humanities & Social Science*, 8(3), 479-493.
- Daradoumis, T. et al. 2010. CRM Applied to Higher Education: Developing an e-Monitoring System to Improve Relationships in e-Learning Environments. *International Journal of Services Technology and Management*, Volume 14, Issue 1, 103-125.
- Galbreath, J. and T. Rogers. 1999. Customer relationship leadership: a leadership and motivation model for the twenty-first century business. *The TQM magazine* 11(3), 161-171.
- Goldenberg, B. 2000. What is CRM? What is an e-customer? Why you need them now, in *Proceedings of DCI Customer Relationship Management Conference*, Boston, MA.
- Hashimoto, K. and Cohn, E. 1997. Economies of scale and scope in Japanese private universities. *Education Economics* 5(2), 107-115.
- Kano N. 1995. Upsizing the organization by attractive quality creation G.H. Kanji, *Total Quality Management: Proceedings of the First World Congress*. Chapman.
- Kavadias, G., Tambouris, E. 2003. GovML: A Markup Language for Describing Public Services and Life Events, in *Proceedings of the 4th IFIP international working conference on Knowledge management in electronic government*, 106-115.
- Kotler, P., and Fox, K. 1985. *Strategic Marketing for Educational Institutions*. Prentice Hall. New Jersey.
- Kotorov, R. P. 2002. Ubiquitous organization: organizational design for e-CRM. *Business Process Management Journal* 8(3), 218-232.
- Lindgreen, A., Palmer, R., Vanhamme, J., and Wouters, J. 2006. A relationship management assessment tool: Questioning, identifying, and prioritizing critical aspects of customer relationships. *Industrial Marketing Management*, 35(1), 57-71.
- Liu, K and Sun, L and Tan, S. 2007. Using Problem Articulation Method to Assist Planning and Management of Complex projects, in Charrel, P. J and Galarreta, D. (Eds.) *Project Management and Risk Management in Complex Projects: Studies in Organisational Semiotics*. Springer, Netherlands, 1-14.
- O'Rand M and Krecker L. 1990. Concepts of the life cycle: their history, meanings and issues in the social sciences. *Annual review of sociology*. Vol. 16, 241-62
- Parasuraman, A. Zeithaml, V.A, and Berry, L.L. 1998. SERVQUAL: a multi-item scale for measuring consumer perceptions of service quality, *Journal of Retailing* Vol. 64.12-40.
- Radcliffe, J. 2001. Eight Building Blocks of CRM: A Framework for Success. Gartner research note.
- Renner, D. 2000. Customer relationship management: a new weapon in your competitive arsenal", *Siebel Magazine*, Vol. 1 No. 2.
- Payne, A. and Frow, P. 2005. A strategic framework for customer relationship management. *Journal of Marketing*, Vol. 69, 167-76.
- Poornima M. C and Charantimath, M. P. 2011. Total Quality Management, *Pearson Education India*, 477-480.
- Porter, B. 2010. KRADLE Project Kingston Relationship Application Data for Learner Engagement. [Online]. Available at: <http://www.jisc.ac.uk/media/documents/programmes/bce/kradlefinalreport.pdf>. [Accessed: 12th November, 2013]
- Kirkby, J. (2002). Developing a CRM Vision and Strategy. *GartnerG2, AI, CRM31*.
- Rigby, D and Ledingham, D. 2004, CRM done right", *Harvard Business Review*, 11.
- Rigby, D. K., et al. 2002. Avoid the four perils of CRM." *Harvard Business Review* 80(2), 101-109.
- Seeman, D.E. and O'Hara, M., 2006. Customer relationship management in higher education: Using information systems to improve the student-school relationship, *Campus - Wide Information Systems*, Vol.23.No 1, pp. 24-34.
- Spanbauer, S. J. 1995. Reactivating higher education with total quality management: using quality and productivity concepts, techniques and tools to improve higher education, *Total Quality Management*, Vol. 6, No. 5/6.
- Thakur, R. et al. 2006. CRM as strategy: Avoiding the pitfall of tactics, *Marketing Management Journal*, Vol. 16, Issue 2, 147-154.
- Zablah, A.R, Bellenger, D.N and Johnston, W. J. 2004. An evaluation of divergent perspectives on customer relationship management: Towards a common understanding of an emerging phenomenon. *Industrial Marketing Management*, 475-489.