CUSTOMER RELATIONSHIP MANAGEMENT MODEL FOR ALU (UTM)

HOSSEIN AHMADI

A dissertation submitted in partial fulfillment of the requirements for the award of the degree of Master of Science (Information Technology - Management)

Faculty of Computer Science and Information Systems Universiti Teknologi Malaysia

JULY 2012

This dissertation is dedicated to my family for their endless support and encouragement.

ACKNOWLEDGEMENT

First and foremost, I would like to express heartfelt gratitude to my supervisor **Associate Professor Dr. Othman bin Ibrahim** for his constant support during my study at UTM. He inspired me greatly to work in this project. His willingness to motivate me contributed tremendously to our project. I have learned a lot from him and I am fortunate to have him as my mentor and supervisor

Besides, I would like to thank the authority of Universiti Teknologi Malaysia (UTM) for providing me with a good environment and facilities such as Computer laboratory to complete this project with software which I need during process.

ABSTRACT

In today's competitive marketplace, educational institutions are sellers proposing courses, a degree, and a rich alumni life. It is more helpful for universities to keep its graduate students as alumni than recruit new students and new supporters for the university to decrease substantially amount of cost. Students are purchasers who register for courses, apply for graduation, and make donations as alumni. The longer these ongoing transactions are satisfactory to both parties, the longer the relationship will endure, to the benefit of every one. In this regard, one extremely useful technique to improve this relationship which has been adopted by many corporations is Customer Relationship Management (CRM). The aim of this research is to provide a better understanding of the usage of CRM based IDIC process model for Alumni Liaison Unit to improve relationship between UTM and its alumni community. Basically, this thesis conducted two research approaches; the first one is qualitative method on the basis of analysis of the empirical data gathered from structured personal interview across Alumni Liaison Unit as research case study. The second research method is quantitative method on the basis of analysis of the statistical data gathered from the distributed questionnaire to customers (graduate students). In fact, both research approaches were accompanied with intense support of literature review which has lead to the creation of new CRM strategy model. The role of this CRM model is to aid organization to realize a one-to-one relationship with customers and customize product and services to offer according to their values and needs.

ABSTRAK

Dalam persaingan pasaran yang semakin mencabar masa kini, institusi pendidikan dilihat sebagai pengeluar kursus, ijazah dan juga alumni yang sihat. Pihak universiti akan mendapat kelebihan sekiranya mereka menggekalkan pelajar siswazah sebagai alumni dan tidak perlu menggunakan khidmat pelajar-pelajar baru, yang seterusnya dapat mengurangkan banyak kos-kos yang terlibat. Pelajar boleh dikategorikan sebagai pelanggan kerana mereka membayar untuk mendaftarkan diri dalam kursus yang tertentu, menamatkan pengajian dan seterusnya menjadi penyumbang di dalam alumni. Semakin lama hubungan baik di antara bekas pelajar dan universiti terjalin, semakin banyak kelebihan yang akan diperolehi oleh keduadua belah pihak. Sehubungan dengan itu, salah satu teknik yang berkesan untuk mengukuhkan hubungan ini adalah dengan menggunakan sistem Pengurusan Perhubungan Pelanggan (CRM), yang mana telah diaplikasi dalam kebanyakan organisasi terkemuka. Tujuan utama kajian ini adalah untuk memberikan kefahaman yang lebih mendalam mengenai penggunaan sistem CRM berasaskan model IDIC untuk kegunaan Unit Perhubungan Alumni bagi mengukuhkan hubungan pihak alumni dan UTM. Tesis ini dijalankan menggunakan dua pendekatan; yang pertama adalah berdasarkan kaedah kualitatif bersandarkan data-data analisis yang dikumpulkan daripada temubual berstruktur dengan menggunakan Unit Perhubungan Alumni sebagai kajian kes. Pendekatan yang kedua pula ialah dengan kaedah kuantitatif berasaskan data-data analisis yang diperolehi daripada soal selidik yang diedarkan kepada pelanggan (pelajar siswazah). Kedua-dua pendekatan ini telah berjaya menghasilkan model CRM yang baru. Fungsi model tersebut adalah untuk membantu organisasi merealisasikan hubungan yang lebih baik di antara pelanggan dan produk serta perkhidmatan yang ditawarkan mengikut nilai dan keperluan mereka.

TABLE OF CONTENTS

| CHAPTER | | TITLE | PAGE |
|---------|---------|------------------------------|------|
| | | DECLARATION | Ii |
| | | DEDICATION | Iii |
| | | ACKNOWLEDGMENT | Iv |
| | | ABSTRACT | V |
| | ABSTRAK | | Vi |
| | | TABLE OF CONTENTS | Vii |
| | | LIST OF TABLES | Xii |
| | | LIST OF FIGURES | Xiv |
| | | LIST OF ABBREVIATION | Xv |
| | | LIST OF APPENDICES | Xvi |
| 1 | INT | RODUCTION | |
| | 1.1 | Introduction | 1 |
| | 1.2 | Background of Problem | 3 |
| | 1.3 | Problem Statement | 5 |
| | 1.4 | Research Objectives | 6 |
| | 1.5 | Scope | 6 |
| | 1.6 | Significant of the project | 7 |
| | 1.7 | Conclusion | 7 |
| 2 | LIT | TERATURE REVIEW | |
| | 2.1 | Introduction | 8 |
| | 2.2 | Customer | 9 |
| | | 2.2.1 Definition of Customer | 10 |

| | 2.2.2 | Custom | er Satisfaction | 10 |
|-----|-------|----------------------|--|----|
| 2.3 | Custo | mer Relat | ionship Management | 11 |
| | 2.3.1 | CRM D | efinition | 11 |
| | 2.3.2 | CRM C | omponents | 13 |
| | | 2.3.2.1 | People | 14 |
| | | 2.3.2.2 | Process | 14 |
| | | 2.3.2.3 | Technology | 15 |
| | 2.3.3 | CRM V | alue Cycle | 15 |
| 2.4 | Three | CRM Pro | ocess Models reviews | 16 |
| | 2.4.1 | CRM A | doption Model | 17 |
| | 2.4.2 | CRM P1 | cocess Model | 22 |
| | 2.4.3 | IDIC Pr | ocess Model | 23 |
| | | 2.4.3.1 | Identify | 24 |
| | | 2.4.3.2 | Differentiate | 25 |
| | | 2.4.3.3 | Customize | 25 |
| | | 2.4.3.4 | Interact | 26 |
| | | 2.4.3.5 | Summary for IDIC Process Model | 27 |
| | 2.4.4 | Justifica (IDIC N | tion for the Selection Model Iodel) | 29 |
| | | 2.4.4.1 | The First Phase Justification (Identification) | 29 |
| | | 2.4.4.2 | The Second Phase Justification (Differentiation) | 29 |
| | | 2.4.4.3 | The Third Phase Justification (Customization) | 30 |
| | | 2.4.4.4 | The Fourth Phase Justification (Interaction) | 30 |
| | | 2.4.4.5 | Summary for IDIC Model Selection | 31 |
| 2.5 | CRM | Technolo | ду | 31 |
| | 2.5.1 | Web Po | rtal | 33 |
| | 2.5.2 | The Rol | e of Internet in Web Portal Application | 33 |
| | 2.5.3 | Medium | of Communication | 34 |
| 2.6 | Summ | nary | | 35 |

3 METHODOLOGY

| 3.1 | Introduction | | | 36 | |
|-----|--------------|------------------------|--------------|------------------------------------|----|
| 3.2 | Case S | Study App | oroach | | 36 |
| | 3.2.1 | Explorat | tory Case St | udy | 37 |
| | 3.2.2 | Explanatory Case Study | | | 37 |
| | 3.2.3 | Descript | ive Case Stu | ıdy | 38 |
| | 3.2.4 | Summar | y of the Cas | e Study Research | 38 |
| 3.3 | Resea | rch Metho | odology | | 39 |
| | 3.3.1 | Research | h Flow Char | t | 39 |
| | | 3.3.1.1 | Operationa | l Framework | 40 |
| | 3.3.2 | Concept | ual Framew | ork | 43 |
| 3.4 | Resea | rch Appro | bach | | 44 |
| | 3.4.1 | Quantita | tive and Qu | alitative Research | 44 |
| 3.5 | Data (| Collection | | | 46 |
| | 3.5.1 | Seconda | ry Data | | 47 |
| | 3.5.2 | Primary | Data | | 47 |
| | | 3.5.2.1 | Interview | | 48 |
| | | 3.5.2.2 | Questionna | nire | 50 |
| | | | 3.5.2.2.1 | Justification of the Questionnaire | 51 |
| 3.6 | Resea | rch Qualit | y | | 52 |
| | 3.6.1 | Validity | | | 52 |
| | 3.6.2 | Reliabili | ity | | 53 |
| 3.7 | Concl | usion | | | 55 |

4 FINDING

| Introduction | | 56 |
|-------------------|--|---|
| Demo | graphic of Respondents in this Thesis | 57 |
| 4.2.1 | Questionnaire Group | 57 |
| 4.2.2 | Interview Group | 58 |
| Interview Finding | | 58 |
| 4.3.1 | Alumni Liaison Unit Organizational | |
| | Background | 60 |
| 4.3.2 | Alumni Liaison Unit Mission and Vision | 62 |
| 4.3.3 | Alumni Liaison Unit Services | 62 |
| | Demo 4.2.1 4.2.2 Interv 4.3.1 4.3.2 | Demographic of Respondents in this Thesis 4.2.1 Questionnaire Group 4.2.2 Interview Group Interview Finding 4.3.1 Alumni Liaison Unit Organizational Background 4.3.2 Alumni Liaison Unit Mission and Vision |

| | 4.3.4 | Membership Process of UTM Alumni | 63 |
|-----|--------|---|----|
| | 4.3.5 | The Benefit for the UTM organization and Alumni | 63 |
| | 4.3.6 | Alumni Medium of Communication | 64 |
| | 4.3.7 | Summary for the Interview Finding | 66 |
| 4.4 | The Qu | uestionnaire Finding | 67 |
| | 4.4.1 | Information in UTM Alumni Liaison Unit Website | 69 |
| | 4.4.2 | Alumni Liaison Unit Medium of Communication | 69 |
| | 4.4.3 | Suggestion for ALU Medium of Communication | 70 |
| | 4.4.4 | ALU Interaction with its Members | 71 |
| | 4.4.5 | Need for Identification | 72 |
| | 4.4.6 | Need for Alumni differentiation | 73 |
| | 4.4.7 | Need for Customization towards Service Based on Alumni's Value | 74 |
| | 4.4.8 | Need for Customization towards Service Based on Alumni's Requirement | 75 |
| | 4.4.9 | Need for Interaction based on Alumni's Value | 76 |
| | 4.4.10 | Need for Interaction based on Alumni's Requirement | 77 |
| 4.5 | Summa | ary of the Questionnaire Finding | 78 |
| 4.6 | Chapte | er Summary | 79 |
| | | | |
| | | | |

5 DESIGN

| 5.1 | Introduction | | 80 |
|-----|--|------------------------------------|----|
| 5.2 | Compare IDIC Model and New CRM Strategy Model | | |
| 5.3 | Model Design | | 81 |
| | 5.3.1 | Phase 1- Identify | 84 |
| | 5.3.2 | Phase 2- Differentiate | 84 |
| | 5.3.3 | Phase 3- Customize | 85 |
| | 5.3.4 | Phase 4- Interact | 85 |
| | 5.3.5 | Summary of the Phases with Benefit | 86 |
| 5.4 | Chapter Summary | | 87 |

6 CONCLUSION

| REFERENCES | | |
|------------|----------------------------|----|
| | 1 2 | |
| 6.6 | Chapter Summary | 91 |
| 6.5 | Recommendation | 91 |
| 6.4 | Future study | 90 |
| 6.3 | Constraints and Challenges | 89 |
| 6.2 | Research Achievements | 88 |
| 6.1 | Introduction | 88 |

| APPENDIX | 95 |
|----------|----|
| | |

LIST OF TABLES

| TA | BL | Æ | Ν | 0 | |
|----|----|---|---|---|--|
|----|----|---|---|---|--|

TITLE

PAGE

| 2.1 | Comparison between the CRM Process Models | 17 |
|------|---|----|
| 2.2 | Feature of Elements in IDIC Model | 28 |
| 3.1 | Description of Operational Framework | 41 |
| 3.2 | Comparison of Research | 45 |
| 3.3 | Mapping Interview Question with the IDIC CRM Model | 49 |
| 3.4 | Reliability Statistics | 53 |
| 3.5 | Item Statistics | 54 |
| 3.6 | Inter-Item Correlation Matrix | 54 |
| 4.1 | Questionnaire Group | 57 |
| 4.2 | Interview Group | 58 |
| 4.3 | Mapping Interview Question with the IDIC CRM model | 59 |
| 4.4 | UTM Alumni Type | 67 |
| 4.5 | UTM Current Relationship with alumni | 68 |
| 4.6 | Kind of UTM Alumni | 68 |
| 4.7 | Perception on Alumni Liaison Unit Information | 69 |
| 4.8 | Alumni Liaison Unit Medium of Communication | 70 |
| 4.9 | Suggestion for ALU Medium of Communication | 71 |
| 4.10 | Alumni Liaison Unit Interaction with its Members | 72 |
| 4.11 | Need for Identification | 73 |
| 4.12 | Need for Alumni differentiation | 74 |

| 4.13 | Need for Customization towards Service | 75 |
|------|--|----|
| 4.14 | Need for Customization towards Service | 76 |
| 4.15 | Need for Interaction | 77 |
| 4.16 | Need for Interaction | 78 |
| 5.1 | Summary of the Phases with Benefit | 87 |

LIST OF FIGURE

| FIGURE NO. | TITLE | PAGE |
|------------|---|------|
| 2.1 | Framework of Literature Review | 9 |
| 2.2 | CRM components (source: Goldenberg, 2003) | 13 |
| 2.3 | Pyramid Framework of a CRM Value Cycle | 16 |
| 2.4 | A Model for CRM Adoption (Source: Reinarts, 2003) | 18 |
| 2.5 | CRM Process Model (Source: Kincaid, 2008) | 22 |
| 2.6 | IDIC Model (source: Siddiqi, 2002) | 24 |
| 3.1 | Research Flow Chart | 40 |
| 3.2 | IDIC Model (source: Siddiqi, 2002) | 43 |
| 4.1 | Alumni Organizational Chart | 61 |
| 5.1 | New CRM Strategy Model | 83 |

LIST OF ABRREVIATION

| ALU | Alumni Liaison Unit |
|------|--|
| AOL | American Online |
| CRM | Customer Relationship Management |
| ICT | Information Communication Technology |
| IDIC | Identification Differentiation Customization |
| IRC | Internet Relay Chat |
| IT | Information Technology |
| ROI | Return on Investment |
| SPS | School of Graduate Studies |
| SPSS | Statistical Package for the Social Sciences |
| UPA | Unit Perhubungan Alumni |
| UTM | University Technology Malaysia |

LIST OF APPENDIX

| APPENDIX | TITLE | PAGE |
|----------|------------------------|------|
| А | Interview Question | 95 |
| В | Questionnaire Question | 96 |

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter will present readers with the background of an educational institution and UTM Alumni Liaison Unit as well as the problem to be studied. Besides that, research questions and the purpose of this research as well as delimitation and definition of key terms will be presented respectively.

Customer Relationship Management (CRM) is becoming an imperative strategyfor virtually every sector of a business organization. Organizations are moving closer to their customers, putting in more effort in seeking new ways to create value for their customers, and transforming customer relationship into one of solution finding and partnering instead of one of selling and order taking (El Sawy and Bowles, 1997).

Educational institutions also realized the importance of their operations and interactions with their customers who include students, alumni, donors, faculty members, and staff members (Richard, 2002). Higher education customers are requesting more attention from the service provided by the Information Communication Technology (ICT). ICT in this field can play an important role

especially for customer satisfaction in higher education institutions. Because of this need, many institutions are taking this opportunity to use technology in achieving their objectives. One of the most popular strategies that has been accepted and confirmed by researchers and many organizations is, Customer Relationship Management (CRM). CRM helps in automating and improving process, and contributing towards the management of customer relationships in the area of recruitment, marketing, communication management, services and support.

To ensure that the proposed model developed meets the objective of development, the developed system used the concept of Customer Relationship Management (CRM) strategy based on CRM model which has been recognized for its effectiveness in higher education. However, CRM was initially applied in the world of information technology (Randy Harris, 2003). In a university such as University Technology Malaysia (UTM), satisfying its alumni is essential and one of the university targets is to continue the communication with them but without a suitable CRM strategy, it may not be possible. The approach to CRM concepts will be discussed further in the literature review.

The emphasis of this research is on the proposed model of the strategy of Customer Relationship Management (CRM) in the higher education field. The model will act as an agent of the supplier, storage, transmission and contain a variety of current information on its database systems to support potential more effective customer service delivery. The model will also improve the communication and interaction system in the process of establishing a friendly relationship, and address the concerns with regards to the knowledge about rights and responsibilities between the customer and university.

This study will take create a new CRM strategy model based on CRM concept as a problem solver to enable the Alumni Liaison Unit to understand and satisfy its alumni community's service needs. Basically, the study would aid UTM to improve its relationship with its alumni as well as achieve its objectives.

1.2 Background of Problem

Information and communication technology (ICT) is "a diverse set of technological tools and resources used to communicate, and create, disseminate, store, and manage information" (Blurton, 2002). ICT includes computers, the internet, broadcasting technology and telephones. Recently, there is an interest towards the use of computers and internet which have had a positive effect on improving the efficiency and effectiveness of education at all levels. It has become necessary that organizations in higher education must focus on the development of such technology and use them to address their customer's needs by providing the best services possible.

The Alumni Liaison Unit has an official and long history of service with University Technology Malaysia (UTM). It was set up on April 1, 1996 with the aim of establishing relationships between UTM and its alumni members. The objectives of the Alumni Liaison Unit are to sustain in a good relationship between UTM and alumni, and foster a sense of belonging among UTM Alumni. Following that, the is the center in UTM for sustaining communication with its alumni and this could be possible only by providing a good information and service according to their needs of the alumni.

Basically, the Alumni Liaison Unit is a critical constituent of UTM because it has an imperative role in sustaining the alumni which is one of the most valuable assets of the university. The members of the alumni are varied and are they could be from different countries, fields, ages, work positions, faculties, departments, etc. Because of the variations within the huge community in the alumni, of the strategies of the Alumni Liaison Unit is to find a way to recognize each of the individual and provide satisfactory services. Based on initial interview conducted with Mr Ishak bin Ahmad. Yusof who is the Alumni Liaison Unit registrar assistant, it was found that that the Alumni Liaison Unit lacked the capability for developing its alumni segmentation or market segmentation to develop its interaction that focuses on a particular market segment or alumni segment.

According to Payne (2005) "market segmentation or (customer segmentation) is a key aspect in CRM and it involves dividing a potential market up into a series of sub markets based on customer characteristic". This is supported by Johnson (2009) who provided the definition in which market segment is "a group of customers who have similar needs that are different from customer's needs in other parts of the market and consequently it helps organization to identify their strategic customers who have the most influence on the organization's revenue" (P.46).

On the other hand, based on initial observations the Alumni Liaison Unit as the UTM center of for organizing the alumni was weak by not understanding the alumni, managing the alumni's information and providing the services needed. As a result, a member of the alumni has no idea about the privileges that are offered by the Alumni Liaison Unit as many do not know of the benefits and potential opportunities of being a UTM Alumni member. Thus, there is a need for the Alumni liaison Unit to portray a good image of its organization towards its members and also potential members by having Customer Relationship Management (CRM).

According to Kotler (1995) "developing a lot of happy, satisfied customerswhether they are students, alumni, professors, or industry employers should be a primary goal of causing quality in higher education" would be the key to the success of a unit. In addition according to the general definition of Customer Relationship Management (CRM) by Deck (2003), "CRM is an approach to customer service (customer service approach) that focuses on customer's needs and behavior in order to establish a close and permanent relationship between the customer and the organization". Therefore, each type of needed service and information delivered must lead to customer satisfaction and even higher than the expected level of satisfaction. Thus, the spread of new pace in Information and Communication Technologies (ICT) effectively emerged to organize such relationships between university and its students by powering them to systematically identify, collect, analyze, and satisfy their needs and preferences.

1.3 Problem Statement

By looking back at the background of problem, the researcher believes that university is forced to stay relevant in this competitive era by having a customerorientated strategy that concentrates on building effective and enduring relationships with the local and international UTM Alumni. Not surprisingly, Information and Communication Technology (ICT) has a vital responsibility here. For this reason, studying the field of information technology and management as well as the novelty of this area inspired the researcher to dissect this problem and look at it from the ICT position within the framework of business. Thus, the main problem identified was "How Customer Relationship Management Model can be cultivated in assisting Alumni Liaison Unit for improving relationship with UTM Alumni?"

The main problem was analyzed from the following aspects:

- i. What is the alumni's segmentation need from the Alumni Liaison Unit in UTM?
- ii. What are the elements of satisfaction for UTM Alumni?
- iii. How can CRM Model improve the relationship between Alumni Liaison Unit and UTM Alumni?

1.4 Research Objective

The research objectives based on the UTM Alumni Liaison Unit are as follows:

- i. To identify the alumni's segmentation for improving alumni's needs.
- ii. To identify the elements of UTM Alumni satisfaction related to CRM.
- iii. To develop a CRM model for improving the relationship between the Alumni Liaison Unit and Alumni of UTM.

Therefore, by considering the aforementioned discussions, the researcher explored the coherent elements and transferred them into an integrated model and finally described them according to their essence needed to form the proposed CRM model.

1.5 Scope

This study was conducted in UTM Alumni Liaison Unit and considered the following aspects:

- i. This research was restricted to Alumni Liaison Unit as its design for UTM Alumni.
- **ii.** The respondents are the local and international UTM Alumni members who have Bachelors, Masters and Ph.D degrees.

1.6 Significance of the Project

- i. This research will enhance the understanding on the abilities to establish, manage and retain effective relationship between UTM and its alumni by satisfying their requirements, preferences and values as well as by solving problems and addressing complaints.
- ii. The research will also increase the awareness of UTM Alumni Liaison Unit about its students who are part of the UTM environment and those who are directly or indirectly interacting with the unit.
- **iii.** The research will provide a model for effective services to be provided by the alumni based on their values and requirements which were gained through the segmentation process after students' graduation as they become alumni groups. As a result, the university will be able to satisfy the needs of the alumni and finally renders its services to be increasingly engaged in sponsoring and fundraising activities among its alumni members as well as obtain other beneficial contributions.

1.7 Conclusion

This chapter is an overview of the research comprised of introduction of the project, background of problem, problem statement (analyzing of the problems), objective, scope and finally, the importance of the project. The research would provide a better understanding of CRM strategies as a whole to achieve the research objectives. The next chapter will review and discuss the various aspects of CRM strategies based on previous researchers' work, as well as different types of CRM models.

REFERENCES

- Adrian Payne and Pennie Frow(2005), "A Strategic Framework for Customer Relationship Management", Journal Of Marketing, Vol.69 167-176.
- A. Payne and P. Frow, "A Strategic Framework for Customer Relationship Management," *Journal of Marketing*, vol. 69, pp. 167-176, 2005.
- Anton, J., & Petouhoff, N. L. (2002). *Customer Relationship Management: The Bottom Line to Optimizing Your ROI* (2nd ed.). UK: Prentice Hall.
- Atul Parvatiyar and Jagdish N.Sheth (2002), Customer Relationship Management: Emerging Practice, Process, and Discipline, Journal of Economic and Social Research, 1-34.
- Blurton, C. (2002). New Directions of ICT-Use in Education. http://www.unesco.org/education/educprog/lwf/dl/edict.pdf; viewed 7 August.
- Deck, S. (2003). *What is CRM?* Retrieved May 21, 2003, from: http://www.cio.com/research/crm/edit/crmabc.html
- El Sawy, O.A. and Bowles, G. (1997), "Redesigning the customer support process for the electronic economy: insights from storage dimensions", MIS Quarterly, Vol. 21 No. 4, pp. 457-83.
- Ghauri, P., & Gronhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide* (3rd ed.). UK: Prentice Hall.
- Goldenberg, B. J. (2003). CRM Automation. US: Prentice Hall.
- Greenberg, P., (2001). CRM at the Speed of Light: Capturing and Keeping Customers in Internet Real Time, McGraw-Hill Companies.
- Google Commercial (2005). *What is Web Portal?* Retrieved January 8, 2005, from: http://www.google.com.my/web portal.html
- Johnson, G., Scholes, K., & Whittington, R. (2009). *Fundamentals of Strategy*. UK: Prentice Hall.

- Kalatoka, R. (2002). Roadmap to Success of CRM, Addison-Wesley. Retrieved July 10, 2002, from: http://www.ejise.com/volume6-issue2/issue2-art17-sammon. Pdf
- Kenneth, C.L., and Jane, P.L. (2001). *The roles and functionalities of international networking*. San Francisco: Jossey-Bass.
- Kevin Jones (2005). *Opportunity Wales e-Commerce*. Retrieved January 18, 2005, from: <u>http://www.ogc.gov.uk/embedded_object.asp?docid=672</u>
- Khalilabad, H. N., Mazandarani, O. N., Sentosa, I., & Piaralal, S. K. (2006). The Impact of Knowledge Management on Customer Relationship Management. *Journal of American Academy of Business*, 9 (2).
- Kincaid, J. W., (2003). *Customer Relationship Management: Getting It Right*, Hewlett-Packard Company.
- Kotler, P., & Fox, K. F. A. (1995). Strategic Marketing for Educational Institutions (2 ed.). New Jersey: Prentice Hall.
- Kumar, R. (2005). *Research methodology: a step-by-step guide for beginners* (2 ed.). London: SAGE Publications.
- Peppers & Rogers. 2001. "Maximizing ROI from your customer based strategy". Insight Report 2001.
- Pyecha, J., (1988). A Case Study Of The Application Of Noncategorical Special Education In Two States Chapel Hill, NC: Research Triangle Institute.
- Randy Harris (2003). What is Customer Relationship Management (CRM) System? United States: Darwin Magazine. Retrieved May 8, 2003, from: http://www.darwinmag.com/read/120103/index.html
- Richard N. Katz (2002), Customer Relationship Management : Web Portal and Higher Education Technologies to make IT Personal, Jossey-Bass Inc.
- Saren, M. (2006). *Marketing graffiti: the view from the street* (1st ed.). Oxford: Butterworth Heinemann.
- Siddiqi. J. Babak. A. Wise. T. 2002. "A framework for implementation of a Customer relationship management strategy in retail sector".Sheffield Hallam University (UK).
- Sweeney Group (2000). *C2 CRM V5.4 by Clear Technologies*. Retrieved March 25, 2000, from: <u>http://www.clearc2.com</u>
- Troy, V. (2008). The Anatomy of a Customer Relationship Management (CRM) Initiative. A doctoral thesis in philosophy, Massey University, Palmerston

North, New Zealand.

- Yin, R. K. (1993). Application of case study research. (Vol. Sage Publication): Thousand Oaks.
- Yin, R. K. (1994). Case study research: Design and methods. (2nd ed.). Thousand Oaks: Sage Publication.