

**AN INITIAL STUDY ON THE EFFECTIVENESS OF  
TM ONLINE CUSTOMER CARE SERVICES**

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**2008**

**AN INITIAL STUDY ON THE EFFECTIVENESS OF  
TM ONLINE CUSTOMER CARE SERVICES**

**A master's project submitted to the Center for Graduate Studies in  
partial fulfillment of the requirements for the degree of  
Master of Science (Information Technology) IT  
University Utara Malaysia**

**By**

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## **ABSTRAK**

Tujuan penyelidikan ini adalah untuk mengkaji keberkesanan Sistem Perkhidmatan Pelanggan TM secara “Online” di Telekom Malaysia Bhd yang digunakan untuk memberi perkhidmatan kepada semua pelanggan TM sebagai perkhidmatan sokongan atau perkhidmatan bantuan pelanggan. Tujuan penyelidikan ini adalah untuk menentukan keberkesanan Sistem Perkhidmatan Pelanggan TM secara “Online” dan mencadangkan suatu penambahbaikan kepada system tersebut. Dalam penyelidikan ini juga , para pelanggan yang melanggan beberapa jenis perkhidmatan menggunakan Sistem Perkhidmatan Pelanggan secara “Online” telah diselidik dan keputusan menunjukkan terdapat empat faktor penting mempengaruhi keberkesanan sistem tersebut. Faktornya ialah tindakbalas dan geraklaku pelanggan itu sendiri, sistem dan teknologi, interaksi interaktif dan perlakuan kakitangan TM dalam menyampaikan sistem Sistem Perkhidmatan Pelanggan TM secara “Online”. Kesemua faktor tersebut telah dibincangkan secara terperinci dan sejauh mana keberkesanan dan peranan Sistem Perkhidmatan Pelanggan TM secara “Online”

## **ABSTRACT**

The purpose of this research is to study the effectiveness of TM Online Customer Care Services at Telekom Malaysia Bhd used for rendering services to all TM customers as an alternative support or a helpdesk service. The aims are to identify the effectiveness the Online Customer Care Service and to provide recommendations for the future improvement of the system. In this study, TM customers in various types of services were surveyed and the results showed that there are four main factors that influence the effectiveness of the TM Online Customer Care Services. These factors are customers' behavior and attitude, technology and system, interactive applications and characteristics of TM Staff, and the paper discusses these factors in detail with an emphasis on the role of the TM Online Customer Care Services.

## **ACKNOWLEDGEMENT**

Praise to GOD Almighty and thankful for giving me the courage, ideas, patience, ability, and strength to complete this project.

My utmost appreciation to my supervisor, Dr. Syazwan Abdullah for guiding the research presented in this thesis. His guidance and inventive ideas have been enormous help throughout the completion of this project. He has been a constant source of motivation and encouragement. I appreciate and thank him for his continuous support, for being always accessible and for providing invaluable feedback on my work. His encouragement helped shape the direction of my work. I do believe that without his kind guidance, the project might not complete as it is intended to be.

I would also like to own the favor to thank my beloved parents and family. My parents, Mr. Karnail Singh and Madam Sant Kaur, my wife Baljit Kaur and my children who never stop giving me their never ending supports, love, prayers, and always been there for me.

My warm thanks also goes to friends, colleagues, superiors, and everyone in Telekom Malaysia Bhd who involved directly or indirectly in this project. Your support, encouragement, collaboration and fruitful interactions help me the most to complete this research.

# TABLE OF CONTENT

<b>PERMISSION TO USE</b>	<b>I</b>
<b>ABSTRAK</b>	<b>II</b>
<b>ABSTRACT</b>	<b>III</b>
<b>ACKNOWLEDGEMENT</b>	<b>IV</b>
<b>TABLE OF CONTENT</b>	<b>V</b>
<b>LIST OF FIGURES</b>	<b>VII</b>
<b>LIST OF TABLES</b>	<b>VIII</b>
<b>LIST OF ABBREVIATIONS</b>	<b>IX</b>
<b>1.0 CHAPTER ONE</b>	<b>1</b>
<b>1.1 INTRODUCTION</b>	<b>1</b>
<b>1.2 WHAT IS CUSTOMER CARE SERVICE?</b>	<b>2</b>
<b>1.3 PROBLEM STATEMENT</b>	<b>3</b>
<b>1.4 RESEARCH OBJECTIVES</b>	<b>4</b>
<b>1.5 SIGNIFICANT OF STUDY</b>	<b>5</b>
<b>1.6 SCOPE</b>	<b>6</b>
<b>1.7 LIMITATION OF THE STUDY</b>	<b>8</b>
<b>2.0 CHAPTER TWO</b>	<b>9</b>
<b>2.1 LITERATURE REVIEW</b>	<b>9</b>
<b>2.2 WHAT IS CUSTOMER CARE SERVICE?</b>	<b>14</b>
<b>2.3 WHY NEED CUSTOMER CARE SERVICE?</b>	<b>15</b>
<b>2.3.1 What you need to do?</b>	<b>17</b>
<b>2.3.2 What to do?</b>	<b>22</b>
<b>2.3.3 What you need to know?</b>	<b>23</b>

<b>2.4 WEB-BASE CUSTOMER CARE SERVICES</b>	<b>24</b>
<b>2.4.1 Accessibility</b>	<b>25</b>
<b>3.0 CHAPTER THREE</b>	<b>26</b>
<b>3.1 RESEARCH METHODOLOGY</b>	<b>26</b>
<b>3.2 INTRODUCTION</b>	<b>27</b>
<b>3.2.1 Questionnaire Objectives</b>	<b>27</b>
<b>3.2.2 Research Factors.</b>	<b>28</b>
<b>4.0 CHAPTER FOUR</b>	<b>31</b>
<b>4.1 FINDINGS</b>	<b>31</b>
<b>4.2 FACTOR 1: AN ASSESMENT OF EFFECTIVENESS</b>	<b>48</b>
<b>4.3 FACTOR 2: AN ASSEMENT OF USABILITY</b>	<b>51</b>
<b>4.4 FACTOR 3: AWARENESS</b>	<b>55</b>
<b>4.5 FACTOR 4: SATISFACTION</b>	<b>57</b>
<b>4.6 ANALISIS OF RESULTS</b>	<b>59</b>
<b>5.0 CHAPTER FIVE</b>	<b>61</b>
<b>5.1 CONCLUTION AND RECOMENDATIONS</b>	<b>61</b>
<b>REFERENCES</b>	<b>63</b>
<b>APPENDICES</b>	<b>70</b>



## LIST OF FIGURES

Figure 1: Main page of TM Online Customer Care Services	33
Figure 2: About TM	34
Figure 3: Personal.	35
Figure 4: Business.	36
Figure 5: TM Online Customer Care Services (Part1).	37
Figure 6: TM Online Customer Care Services (Part2)	38
Figure 7: Enquiries. TM Online Customer Care Services (Part1)	39
Figure 8: Enquiries. TM Online Customer Care Services (Part2)	40
Figure 9: Complain. TM Online Customer Care Services	41
Figure 10: Feedback. TM Online Customer Care Services	42
Figure 11: Service Center.	43
Figure 12: TM Rewards	44
Figure 13: Faulty telephone report	45
Figure 14: TM Point.	46
Figure 15: Directory.	47
Figure 16: USEFULNESS	50
Figure 17: EASE OF USE	52
Figure 18: EASE OF LEARNING	54
Figure19: AWARENESS	56
Figure 20: SATISFACTION	58

## LIST OF TABLES

Table 1: USEFULNESS	49
Table 2: USEFULNESS (%)	49
Table 3: EASE OF USE	51
Table 4: EASE OF USE (%)	51
Table 5: EASE OF LEARNING	53
Table 6: EASE OF LEARNING	53
Table 7: AWARENESS	55
Table 8: AWARENESS (%)	55
Table 9: SATISFACTION	57
Table 10: SATISFACTION (%)	57

## **LIST OF ABBREVIATIONS**

TM TELEKOM MALAYSIA BHD  
BHD BERHAD  
UUM UNIVERSITI UTARA MALAYSIA

# **1.0 CHAPTER ONE**

## **1.1 INTRODUCTION**

This chapter presents the main idea of the research, which is the process of examining the effectiveness of TM Online Customer Care Services. In addition, this chapter also discusses problem statement, objectives, scope, and the significance of the study. TM Online Customer Care Services provide services like online enquiries, where TM customers can enquire about any kind of services, latest products, and information about how to subscribe these products. TM Online Customer Care Services also provide space for customers to write a complaint about any dissatisfaction upon our products or incomplete job done. TM value customer's opinion and TM provide space for customer to post their comments or recommendations to further improve our services.

The contents of  
the thesis is for  
internal user  
only

## REFERENCES

Alhabshi, A.O. (2002), "E-learning – a Malaysia case study", National Institute of Public Administration (INTAN), Bukit Kiara Main Campus, Kuala Lumpur, Malaysia.

Ancis, J.R. (1998), "Cultural competency training at a distance: challenges and strategies", *Journal of Counseling and Development*, Vol. 76 No.2, pp.134-43.

Barron, T. (2001), "An e-learning industry update", *Learning Circuits*, available at: [www.learningcircuits.org/2001/jul2001/barron.html](http://www.learningcircuits.org/2001/jul2001/barron.html) (accessed 28 April 2007).

Dewhurst, D.G., Macleod, H.A., Norris, T.A.M. (2000), "Independent student learning aided by computers: an acceptable alternative to lectures?", *Computers & Education*, Vol. 35 pp.223-41.

Embi, A.M., Yamat, H., Zolkepli, H. (2001), "Trainees' perception towards a Web-based online course", *VirTEC Journal*, Vol. 1 No.1, pp.33-9.

Gan, S.L. (1998), "Online distance education program: problems and issues", Proceedings of the International Conference on Information Technology and Multimedia at UNITEN (ICIMU '98), Malaysia.

Hester, J.B. (1999), "Using a Web-based learning test as a learning tool", *Journalism & Mass Communication Educator*, Vol. 54 No.1, pp.35-41.

Lee, M.G. (2001), "Profiling students' adaptation styles in Web-based learning", *Computers & Education*, Vol. 36 No.2, pp.121-32.

Leidner, D.E., Jarvenpaa, S.L. (1995), "The use of information technology to enhance management school education: a theoretical view", *MIS Quarterly*, Vol. 19 No.3, pp.265-91.

Manjit, S.S., Shaufique, F.S. (2002), "Factors influencing learning effectiveness in a virtual learning environment: a case study of University Tun Abdul Razak, Malaysia", available at:

<http://gdenet.idln.or.id/Technology/TechnologyInterpInteracIntegratedManjid.htm> (accessed 9 April 2007),

McIsaac, M.S., Rowe, J. (1997), "Ownership and access: copyright and intellectual property in the online environment", *New Directions for Community Colleges*, Vol. 25 No.3, pp.83-92.

Parker, A. (1997), "A distance education how-to manual: recommendations from the field", *Educational Technology Review*, Vol. 8 pp.7-10.

Rezen website – [www.rezen.com.my](http://www.rezen.com.my) - accessed at 15/3/2007

Rosenberg, M.J. (2001), "E-learning: strategies for delivering knowledge in the digital age", available at: <http://reach.ucf.edu/~eme6457/main.html> (accessed 22 April 2007).

Schmeck, R.R., Geisler-Bernstein, E. (1989), "Individual differences that affect the way students approach learning", *Learning and Individual Differences*, Vol. 1 No.1, pp.85-124.

Schmidt, S., Shelly, M.C., Wart, M.V., Clayton, J., Schreck, E. (2000), "The challenges to distance education in an academic social science: the case of political science", *Education Analysis and Archives*, available at: <http://epaa.asu.edu/epaa/v8n27/> (accessed 26 July 2003)., Vol. 8 No.27, .

Agresti, A. (1997). *Statistical Methods for the Social Sciences*, 3rd. ed. Upper Saddle River, NJ: Prentice-Hall.

American Psychological Association (1982). *Ethical Principles in the Conduct of Research with Human Participants*. Washington, D.C.: American Psychological Association.

Clayton, P., Applebee, A., and Pascoe, C. (1996). Email surveys: Old problems with a new delivery medium. *LASIE: Information Bulletin of the Library Automated Systems Information Exchange*, 27(2), 30-39.



Dillman, D. A. (1978). *Mail and Telephone Surveys: The Total Design Method*. New York: Wiley.

Emerson, R. B. (1983). *Contemporary Field Research*. Boston: Little, Brown.

Fowler, F. J., Jr. (1995). *Improving Survey Questions: Design and Evaluation*. Thousand Oaks, CA: Sage Publications.

Frankfort-Nachmias, C., and Nachmias, D. (1996). *Research Methods in the Social Sciences*, 5th ed. London: Edward Arnold.

Groves, R. M. (1989). *Survey Errors and Survey Costs*. New York: Wiley.

Henry, G. T. (1990). *Practical Sampling*. Newbury Park, CA: Sage.

Judd, C. M., Smith, E. R., and Kidder, L. H. (1991). *Research Methods in Social Relations*, 6th ed. Fort Worth, TX: Holt, Rinehart, and Winston.

Labaw, P. J., (1980). *Advanced Questionnaire Design*. Cambridge, MA: Abt Books.

Martin, P., and Bateson, P. (1986). *Measuring Behavior: An Introductory Guide*. Cambridge: Cambridge Univ. Press.

McCall, R. B. (1998). *Fundamental Statistics for the Behavioral Sciences*, 7th ed. Pacific Grove, CA: Brooks/Cole.

McGrath, R. E. (1997). *Understanding Statistics: A Research Perspective*. New York: Longman.

McKenna, R. J. (1995). *The Undergraduate Researcher's Handbook: Creative Experimentation in Social Psychology*. Boston: Allyn and Bacon.

Daston L., *Classical Probability in the Enlightenment*, Princeton University Press, 1988.


The book points out that early Enlightenment thinkers could not face uncertainty. A mechanistic, deterministic machine, was the Enlightenment view of the world. David H., and A. Edwards, *Annotated Readings in the History of Statistics*, Springer, 2001. Offers a general historical collections of the probability and statistical literature.

Gillies D., *Philosophical Theories of Probability*, Routledge, 2000. Covers the classical, logical, subjective, frequency, and propensity views.


Hacking I., *The Emergence of Probability*, Cambridge University Press, London, 1975. A philosophical study of early ideas about probability, induction and statistical inference.

## APPENDICES

### FORM 1.

	Name:		Date:		FORM 1				
	Address:		Home:						
	Service: Telephone/Streamyx :		Business:						
	Contact Number:								
<b>USEFULNESS</b>									
1	It helps me be more effective.		1	2	3	4	5	strongly disagree	strongly agree
2	It helps me be more productive.							strongly disagree	strongly agree
3	It is useful.							strongly disagree	strongly agree
4	It gives me more control over the activities in my life.							strongly disagree	strongly agree
5	It makes the things I want to accomplish easier to get done.							strongly disagree	strongly agree
6	It saves me time when I use it.							strongly disagree	strongly agree
7	It meets my needs.							strongly disagree	strongly agree
8	It does everything I would expect it to do.							strongly disagree	strongly agree
<b>SATISFACTION</b>									
1	I am satisfied with it.		1	2	3	4	5	strongly disagree	strongly agree
2	I would recommend it to a friend.							strongly disagree	strongly agree
3	It is fun to use.							strongly disagree	strongly agree
4	It works the way I want it to work.							strongly disagree	strongly agree
5	It is wonderful.							strongly disagree	strongly agree
6	I feel I need to have it.							strongly disagree	strongly agree
7	It is pleasant to use.							strongly disagree	strongly agree

## FORM 2.

	Name:		Date:		FORM 2					
	Address:		Home:							
	Service: Telephone/Streamyx :		Business:							
	Contact Number:									
<b>EASE OF USE</b>					<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
1	It is easy to use.		strongly disagree							strongly agree
2	It is simple to use.		strongly disagree							strongly agree
3	It is user friendly.		strongly disagree							strongly agree
4	It requires the fewest steps possible to accomplish what I want to do with it.		strongly disagree							strongly agree
5	It is flexible.		strongly disagree							strongly agree
6	Using it is effortless.		strongly disagree							strongly agree
7	I can use it without written instructions.		strongly disagree							strongly agree
8	I don't notice any inconsistencies as I use it.		strongly disagree							strongly agree
9	Both occasional and regular users would like it.		strongly disagree							strongly agree
10	I can recover from mistakes quickly and easily.		strongly disagree							strongly agree
11	I can use it successfully every time.		strongly disagree							strongly agree
<b>EASE OF LEARNING</b>					<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
1	I learned to use it quickly.		strongly disagree							strongly agree
2	I easily remember how to use it.		strongly disagree							strongly agree
3	It is easy to learn to use it.		strongly disagree							strongly agree
4	I quickly became skillful with it.		strongly disagree							strongly agree