

**THE IMPACT OF STUDENTS ATTENTION, PREPARATION AND  
ATTITUDE ON SATISFACTION WITH ONLINE LEARNING ZONE**

**ANISAH BINTI ABDUL GHANI**

**MASTER OF SCIENCE (MANAGEMENT)  
UNIVERSITI UTARA MALAYSIA  
JUNE 2014**

**THE IMPACT OF STUDENTS ATTENTION, PREPARATION AND  
ATTITUDE ON SATISFACTION WITH ONLINE LEARNING ZONE**

**By**

**ANISAH BINTI ABDUL GHANI**

**Thesis Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
University Utara Malaysia,  
in Fulfillment of the Requirements for the Degree of  
Master of Science (Management)**

## **CERTIFICATION OF DISSERTATION**

I certify that the substance of this dissertation has not been submitted to any degree and is not currently being submitted for and other degree qualification. I certify that any help received in preparing this dissertation and all sources used have been acknowledged in this dissertation.

.....

(ANISAH BINTI ABDUL GHANI)

## **PERMISSION TO USE**

In presenting this dissertation in partial fulfillment of the requirements for a post graduate degree from Universiti Utara Malaysia, I agree that the University Library may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor or in her absence, by the Dean, Othman Yeop Abdullah, Graduate School of Business. It is understood that any copying or publication or use of this dissertation or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my dissertation.

Request for permission to copy or to make other use of materials in this dissertation, in whole or in part, should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business  
Universiti Utara Malaysia  
06010 UUM Sintok  
Kedah Darul Aman

## **DEDICATION**

SPECIALLY DEDICATED FOR:

My Parents,

**Abdul Ghani Bin Mat Derus**

**Zaiton Binti Yacoub**

For the love, faith, support, prayers, patience, sacrifices and kindness,

My brothers,

**Ahmad Muslim Bin Abdul Ghani**

**Abdul Hakim Bin Abdul Ghani**

**Akmal Bin Abdul Ghani**

For the support, kindness, prayers and faith,

My supervisor,

**Dr. Aliyu Olayemi Abdullateef**

For their encouragement, assistance and unending generosity,

My friends,

**Nur Abidah Binti Ismail**

**Nor Farhany Binti Ahmad**

**Nor Syuhada Binti Saiddin**

**Rafikah Binti Mohd Daud**

**Siti Hamira Binti Hamzani**

**Judy Anak Akim**

For the prayers, wishes, being very supportive, understanding, bring joy and happiness to me and helpful also for the moments of up and down together...

## ACKNOWLEDGEMENT

*In the name of Allah, the Most Gracious and Most Merciful. Praise to Allah S. W. T.  
The Creator and Guardian of the universe. Praise and peace be upon Prophet  
Muhammad  
S.A.W; the last messenger of Allah, his family and his companions, whom we  
gain the enlightenment.*

My greatest gratitude to Allah SWT, the Grandest and Almighty, Most Gracious and the Most Merciful for giving me the chance, time, and ability to perform this study and for all the chances He has given to me until now. All my efforts will end for nothing without His blessing. First and foremost, a very special 'Jazakallahhu Khairan Kathira' is extended to my supervisor, Dr. Aliyu Olayemi Abdullateef for his supervision of this research. His ideas, guidance, advice, understanding and tolerance have been an enormous help throughout the process in completing this research.

I wish to express my utmost appreciation and gratitude to my parents, Abdul Ghani Bin Mat Derus and Zaiton Binti Yacoub for their sacrifices, patience, love, caring, support, prayer, wishes, faith, and understanding that they have given to me throughout my life. Thanks also to my brothers Ahmad Muslim Bin Abdul Ghani, Abdul Hakim Bin Abdul Ghani and Akmal Bin Abdul Ghani for the joy, happiness, support, encouragement and prayers.

Last but not least, deepest thanks to all my friends especially Nur Abidah Binti Ismail and those who are involve either directly or indirectly and also help myself during this research progress until it is finish to the end. Thanks for the friendship, moments and keep supporting me.

Thank you

***Anisah Binti Abdul Ghani, June 2014***

## **ABSTRAK**

Arus perubahan teknologi telah banyak mengubah hidup pada masa kini. Pendidikan juga tidak terkecuali daripada arus perubahan teknologi. Teknologi kini memainkan peranan yang penting untuk memperkasakan lagi tahap capaian ilmu yang lebih cepat dan mudah. Perubahan-perubahan dalam sistem pendidikan Malaysia mahupun dunia telah mengambil langkah untuk menerajui bidang ilmu menggunakan capaian talian yang dipercayai dapat memberikan manfaat kepada bidang pendidikan secara amnya. Universiti-universiti di Malaysia samada IPTA mahupun IPTS telah menggunakan kemudahan capaian internet untuk memberikan pelajar-pelajar ilmu dan maklumat dengan cara yang lebih berkesan serta boleh dipercayai. Oleh yang demikian, kajian ini mengkaji tahap penerimaan Learning Zone sebagai satu portal yang membantu kepada pembelajaran mahupun pengajaran. Di dalam kajian ini mempunyai tiga instrumen asas iaitu perhatian, penyediaan, sikap pengguna dan kepuasan pengguna. Ini adalah untuk mengkaji adakah perhatian dan penyediaan akan memberi kesan terhadap sikap pengguna untuk mencapai kepuasan. Responden yang terlibat dalam kajian ini terdiri daripada pelajar-pelajar UUM yang mempunyai akses kepada penggunaan Learning Zone. Seramai 349 responden digunakan dalam kajian ini untuk mencapai objektif kajian. Oleh itu, analisis korelasi dan regresi mudah telah digunakan untuk mengkaji samada perhatian dan penyediaan memberi kesan kepada sikap pengguna dan seterusnya mempengaruhi kepuasan pengguna. Secara amnya, analisis korelasi menunjukkan terdapat korelasi yang signifikan dan positif secara kuat antara pembolehubah perhatian terhadap sikap pengguna; penyediaan dan sikap pengguna terhadap kepuasan pengguna.

## **ABSTRACT**

Changes in technologies have changed our lives. Education field was not exempted from the current technological changes. Technology now plays an important role to improve accessibility in seeking knowledge and wisdom much faster and easier. The changes of Malaysia's education system and worldwide generally have taken steps to lead the field in using trusted online access to benefit the education sector. Public and private institutions in Malaysia have been taking advantage from ease of internet access to provide its students with more secure and reliable information more efficiency. Therefore, this study is to examine the level of acceptance using Learning Zone as a portal that helps learning process. In this study, three basic instruments of attention, preparation, attitude and user satisfaction (US) that use as to explain Learning Zone. Furthermore, this study examined whether attention and preparation will have an impact on the attitude to achieve satisfaction. Students of Universiti Utara Malaysia (UUM) which have access of using Learning Zone have been selected to participate in the study. A total of 349 usable data provide by the respondents is being used to achieve the objectives of the study. To empirically establish three objectives, correlation and regression analysis were used to examine whether attention and preparation will have any impact on user satisfaction. Evidently, the correlation analysis shows that there is a significant and strong positive correlation between attention, preparation, and attitude towards user satisfaction.



## **TABLE OF CONTENT**

<b>CERTIFICATION OF DISSERTATION.....</b>	<b>I</b>
<b>PERMISION TO USE.....</b>	<b>II</b>
<b>DEDICATION.....</b>	<b>III</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>IV</b>
<b>ABSTRAK.....</b>	<b>V</b>
<b>ABSTRACT.....</b>	<b>VI</b>
<b>LIST OF TABLE.....</b>	<b>XI</b>
<b>LIST OF FIGURE.....</b>	<b>XII</b>
<b>LIST OF ABBREVIATIONS.....</b>	<b>XIII</b>

## **CHAPTER 1**

### **INTRODUCTION**

1.0	Introduction to the Study.....	1
1.1	Background of Study.....	1
1.2	Problem Statement.....	6
1.3	Research Objectives.....	9
1.4	Research Questions.....	9
1.5	Scope of Study.....	10
1.6	Significance of the Study.....	10
1.7	Limitation of Study.....	11
1.8	Organization of Remaining Chapters.....	12
1.9	Chapter Summary.....	15

## **CHAPTER 2**

### **LITERATURE REVIEW**

2.0	Introduction.....	16
2.1	Review Of Related Literature	
2.1.1	Technology of E-learning.....	16
2.1.2	Learning Zone (LZ).....	19
2.1.3	Theory of Reasoned Action (TRA).....	21
2.1.4	User Satisfaction with Learning Zone.....	24
2.1.5	Relationship between Attention, Preparation and Attitude toward Learning Zone.....	27
2.1.6	Relationship between Attitude and User Satisfaction toward Learning Zone.....	29
2.2	Research Model / Framework.....	31
2.3	Hypotheses.....	32
2.4	Chapter Summary.....	32

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

3.0	Introduction.....	33
3.1	Research Design.....	33
3.1.1	Type of Study.....	34
3.1.2	Time Horizon.....	34
3.1.3	Population.....	35
3.1.4	Sample Size.....	37
3.1.5	Sampling Design.....	38
3.2	Data Collection And Procedure	
3.2.1	Primary Data.....	38
3.2.2	Secondary Data.....	39
3.3	Measurement/ Instrumentation	
3.3.1	Questionnaire Measurement.....	40

3.3.2	Research Instrument.....	42
3.3.3	Accuracy of Measures.....	43
3.4	Data Analysis Technique.....	45
3.4.1	Descriptive Analysis.....	45
3.4.2	Reliability analysis.....	46
3.4.3	Factor Analysis.....	46
3.4.4	Correlation Analysis.....	47
3.4.5	Regression Analysis.....	48
3.5	Chapter Summary.....	49

## CHAPTER 4

### FINDINGS

4.0	Introduction.....	50
4.1	Sample of Study.....	51
4.2	Data Screening and Cleaning Analysis.....	51
4.2.1	Overview.....	51
4.2.2	Missing Data.....	52
4.2.3	Checking for Outliers.....	53
4.3	Demographic Data.....	53
4.3.1	Gender of Respondents.....	54
4.3.2	Age of Respondents.....	54
4.3.3	Education Level of Respondents.....	55
4.3.4	Level of Respondent Using Learning Zone.....	55
4.3.5	Level of Respondent Open Learning Zone.....	56
4.4	Descriptive Statistics For Each Variable.....	58
4.4.1	Attention.....	59
4.4.2	Preparation.....	60
4.4.3	Attitude.....	61
4.4.4	User Satisfaction.....	62
4.5	Reliability Test.....	64
4.6	Factor Analysis.....	65

4.4.1	Factor Analysis for Attention.....	66
4.4.2	Factor Analysis for Preparation.....	67
4.4.3	Factor Analysis for Attitude.....	68
4.4.4	Factor Analysis for User Satisfaction.....	69
4.7	Correlation.....	70
4.5.1	Attention and Attitude.....	71
4.5.2	Preparation and Attitude.....	72
4.8	Regression.....	73
4.8.1	Attention and Preparation Towards Attitude.....	73
4.8.2	Attitude Towards User Satisfaction.....	75
4.9	Chapter Summary.....	76

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

5.0	Introduction.....	77
5.1	Discussion.....	77
5.2	Discussion of Finding.....	79
5.3	Recommendations for Future Research.....	80
5.4	Conclusion.....	82

<b>REFERENCES.....</b>	<b>83</b>
------------------------	-----------

### **APPENDICES**

Appendix 1: Letter of Application.....	93
Appendix 2: Questionnaire.....	94
Appendix 3: Frequencies Analysis.....	99
Appendix 4: Descriptive Analysis.....	101
Appendix 5: Reliability Analysis.....	104
Appendix 6: Factor Analysis.....	105
Appendix 7: Correlation Analysis.....	109
Appendix 8: Regression Analysis.....	110

## LIST OF TABLE

Table 1.1	Usage for UUM's Learning Zone.....	5
Table 3.1	Number of Student Undergraduate and Postgraduate in Universiti Utara Malaysia on 06/10/2013.....	35
Table 3.2	Total of Student Universiti Utara Malaysia on 06/10/2013.....	37
Table 3.3	Operationalization of Theoretical Constructs.....	41
Table 3.4	Strength of relationship for Coefficient correlation (r).....	47
Table 4.1	Response Rate.....	51
Table 4.2	Gender of Respondents.....	54
Table 4.3	Age of Respondents.....	54
Table 4.4	Education Level of Respondents.....	55
Table 4.5	Level of Respondent Using Learning Zone.....	56
Table 4.6	Level of Respondent Open Learning Zone.....	56
Table 4.7	Respondents Background.....	57
Table 4.8	Mean and Standard Deviation Score for Respondent Opinion of Attention Item.....	59
Table 4.9	Mean and Standard Deviation Score for Respondent Opinion of Preparation Item.....	61
Table 4.10	Mean and Standard Deviation Score for Respondent Opinion of Attitude Item.....	62
Table 4.11	Mean and Standard Deviation Score for Respondent Opinion of User Satisfaction Item.....	63
Table 4.12	Reliability Result.....	64
Table 4.13	Factor Analysis on Attention.....	66
Table 4.14	Factor Analysis on Preparation.....	67
Table 4.15	Factor Analysis on Attitude.....	68
Table 4.16	Factor Analysis on User Satisfaction.....	69
Table 4.17	To measure the hypotheses.....	70
Table 4.18	Correlation between Attention and User Attitude.....	71
Table 4.19	Correlation between Preparation and User Attitude.....	72
Table 4.20	Results of Correlation Analysis.....	72
Table 4.21	Model Summary and Anova between Attention and Preparation toward Attitude.....	73
Table 4.22	Coefficient and Statistic Attention and Preparation towards Attitude.....	74
Table 4.23	Model Summary and Anova between Attitudes toward User Satisfaction.....	75
Table 4.24	Coefficient and Statistic Attention and Preparation and Attitude towards User Satisfaction.....	75
Table 4.25	Summarize of the hypotheses result.....	76

## LIST OF FIGURE

Figure 2.1	Theory of Reasoned Action (TRA).....	23
Figure 2.2	Research Framework.....	31

## **LIST OF ABBREVIATIONS**

ICT	Information and Communication Technology
IT	Information Technology
LC	Learning Care
LMS	Learning Management System
LZ	Learning Zone
MOODLE	Modular Object-Oriented Dynamic Learning Environment
TRA	Theory of Reasoned Action

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 INTRODUCTION TO THE STUDY**

This chapter covered the introduction of study which consists of the background of the study, problem statement, research objectives, research questions, scope of the study, significance of the study, and organization of remaining chapters on this research.

#### **1.1 BACKGROUND OF STUDY**

Technology is utilized more than ever to deliver instructional material to the learner. It is troublesome to discover a higher instruction course that does not utilize or exploit innovation somehow (Longley, Dennis, Shain & Michael, 1985). Technology also changing at a phenomenal rate and without the correct hardware set up; one stands the danger of being abandoned (de Freitas & Oliver, 2005).

Furthermore, one of the technologies that have been use in the global is internet. The web is the biggest, most effective workstation organizes on the planet. It includes a few million machines with web addresses that are utilized by a large number of individuals around the globe (Kuiper et al., 2005). Internet has become an important element in many aspects in our life routine, including learning process while in the university. With the increasing of internet users day by day, its power has become infinity and unlimited.



The contents of  
the thesis is for  
internal user  
only

## REFERENCES

- Adarns, D., Nelson, R. R., Todd, P. A. (1992). Perceived usefulness, ease of use, and usage of information technology: A replication. *MIS Quarterly*, 16, 227-247.
- Ahmed, Y., & Raheem, A. (2012). Interactions quality in MOODLE as perceived by learners and its relation with some variables. *Turkish Online Journal of Distance Education*, 13(3), 375-389.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Ajzen, I. 1988. *Attitudes, Personality and Behavior*, Dorsey Press, Chicago, IL.,
- Ajzen, I. (1991), "The Theory of Planned Behaviour," *Organizational Behaviour and Human Decision Processes*, 50(2), 179–211.
- Al-Gahtani (2001). The applicability of TAM outside North America: An empirical test in the United Kingdom. *Information Resources Management Journal* 14(3), 37
- Ali Sher (2009). Assessing the relationship of student-instructor and student-student interaction to student learning and satisfaction in Web-based Online Learning Environment. *Journal of Interactive Online Learning*, 8(2).
- Bearden, W. O. & Rose, R. L. (1990). Attention to social comparison information: An individual difference factor affecting consumer conformity. *Journal of Consumer Research*, 16, 461-471.
- Becker, D.A. and Dwyer, M.N. (1994), "Using hypermedia to provide learner control", *Journal of Educational Multimedia and Hypermedia*, 3 (2), 155-172.
- Bernard, H. R. (1995). *Research methods in anthropology: Qualitative and quantitative approaches*. Walnut Creek, CA: AltaMira.
- Berge, Z. (1999). Interaction in post-secondary Web-based learning. *Educational Technology*, 39(1), 5-11.
- Blackwell, R.D., Paul, W.M. & James, F.E. (2006). *Attributes of Attitudes. In Consumer Behavior,* ". 235-243, USA: Thomson Press

- Boldt, D. J., Gustafon, L. V. & Johnson, J. E. (1995). The Internet: a curriculum warehouse for social studies teachers. *Soc. Stud*, 86, 105-116.
- Bryman, A. (2007). *Business Research Methods*. Oxford University Press.
- Byrne, B. M. (2010). Structural Equation Modeling with AMOS; *Basic Concepts, Application and Programming* 2nd edition; Routledge Taylor and Francis Group New York
- Carnagan, C., & Webb, A. (2005). *Investigating the effects of group response systems on learning outcomes and satisfaction in accounting education*. Working paper from the School of Accountancy at the University of Waterloo, Ontario, Canada.
- Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*. Queensland: John Wiley & Sons.
- Chen, H.-L., & Williams, J. P. (2008). Use of multi-modal media and tools in an online information literacy course: College students' attitudes and perceptions. *The Journal of Academic Librarianship*, 35(1), 14–24.
- Chewe, P. & Chitumbo, E. M. M. (2012). Moodle adoption at the University of Zambia: Opportunities and Challenges, *Science Journal of Sociology and Anthropology*, 289.
- Cohen, S. (2005). *Personal response systems changing college classrooms*. Knight Ridder Tribune Business News, 1.
- Churchill, G.A. Jr (2001), *Basic Marketing Research*, (4<sup>th</sup> ed), The Dryden Press, Fort Worth, TX.
- Coakes, S. J. & Steed, L. (2007). *SPSS version 14.0 for Windows: Analysis without anguish*. Melbourne: Wiley.
- Cooper, C. R. and Schindler, P. S. (2011). *Business Research Methods*. (11th Edition). New York: Mc-Graw Hill.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13 (3), 318-340.

- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1003.
- DeBono, K. G. (1987). Investigating the social-adjustive and value-expressive functions of attitudes: Implications for persuasion processes. *Journal of Personality and Social Psychology*, 52, 279-287.
- DeBono, K. G. & Packer, M. (1991). The effects of advertising appeal on perceptions of product quality. *Personality and Social Psychology Bulletin*, 17, 194-200.
- De Freitas, S. and Oliver, M. (2005), "Does e-learning policy drive change in higher education? A case study relating models of organisational change to e-learning implementation", *Journal of Higher Education Policy and Management*, 27(1), 81-95.
- Eastman J. K. (2007). Enhancing classroom communication with interactive technology: How faculty can get started. *International College Teaching Methods & Styles Journal*, 3(1), 31–38.
- Eastman, J.K, Iyer, & Eastman, K.L, (2011). Business Students' Perceptions, Attitudes, and Satisfaction with Interactive Technology: An Exploratory Study. *Journal of Education for Business*, 86, 36–43.
- Fishbein, M. & Ajzen, I. (1975), *Belief; attitude, intention and behavior: an introduction to theory and research*. Reading, MA: Addison-Wesley.
- Gaudio, E., Hernandez-del-Olmo, F. and Montero, M. (2009), "Enhancing e-learning through teacher support: two experiences", *IEEE Transaction on Education*, 52 (1), 109-15.
- Ghosh, S., & Renna, F. (2009). Using electronic response systems in economics classes. *Journal of Economic Education*, 40, 354–365.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6<sup>th</sup> Ed). Upper Saddle River, New Jersey: Pearson Education International.

- Haruna, M. Z. (2010). *Software architecture evaluation using Architecture Trade off Analysis Method (ATAM): A case study off UUM learning zone system, Universiti Utara Malaysia*. Master of Science (Information and Communication Technology).
- Hau, K. T., & Marsh, H. W. (2004). The use of item parcels in structural equation modeling: Non-normal data and small sample sizes” *British Journal of Mathematical & Statistical Psychology*, Volume (57), 327-351.
- Hendricks, J. D., Meyers, T. R., Casteel, J. L., Nixon, J. E., Loveland, P. M., Bailey, G. S. (1984). Rainbow Trout Embryos: Advantages and Limitations for Carcinogenesis Research. *Natl Cancer Inst.*, Monogr, 65, 129-1 37.
- Horst, P. (1968). *Personality: Measurement of Dimensions*. California: Jossey-Bass.
- Johnson, R. B., & Christensen, L. B. (2004). *Educational research: Quantitative, qualitative, and mixed approaches*. Boston: Allyn and Bacon.
- Khan, M. B. (2009). Effects of information technology usage on student learning- An empirical study in the United States. *International Journal of Management*, 26, 354-364.
- Kuiper, E., Volman, M. and Terwel, J. (2005), “The web as an information resource in K-12 education: strategies for supporting students in searching and processing information”, *Review of Educational Research*, 75 (3), 285-328.
- Learning Systems Architecture Lab [LSAL]. (2004). *SCORM Best practices guide for content developers* (2004 ed.). Pittsburgh: Carnegie Mellon University.
- Lincoln, D. J. (2008). Teaching with clickers in the large-size principles of marketing class. *Marketing Education Review*, 18(1), 39–45.
- Lindel, M. K. and Whitney, D. J. (2001). Accounting for Common Method Variance in Cross-Sectional Research Design. *Journal of Applied Psychology*, 86 (1), 114-121.
- Longley, Dennis, Shain, Michael (1985). *Dictionary of Information Technology* (2 ed.), Macmillan Press, 164.

- Malhotra, N. K. (2004). *Marketing Research: An Applied Orientation*. London: Prentice Hall.
- Manochehr, N., (2006). The influence of learning styles on learners in e-learning environments: An Empirical Study. *Comp. Higher Educ. Econ. Rev.*, 18, 10-14.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Marshall M.N. (1996). The key informant technique. *Fam Pract.* 13, 92-97.
- Maslin, M. (2007). *Technology Acceptance Model and E-learning*. 12<sup>th</sup> International Conference on Education. Sultan Hassanah Bolkiah Institute of Education University Brunei Darussalam.
- Mathieson, K. (1991). Predicting user intentions: comparing the technology acceptance model with theory of planned behavior. *Information Systems Research*, 2(3), 173-191.
- Matulich, E., Papp, R., & Haytko, D. L. (2008). Continuous improvement through teaching innovations: A requirement for today's learners. *Marketing Education Review*, 18(1), 1–7.
- Menkhoff, T., Thang, T. Y., Chay, Y. W., and Wong, Y. K. (2011). Engaging knowledge management learners through web-based ICT: an empirical study. *The Journal of Information and Knowledge Management System*. 41(2), 132-151.
- Moodle (2005). Moodle Website. <http://moodle.org>
- Moodle (2010). Moodle Website. <http://moodle.org>
- Moore, M., & Kearsley, G. (1996). *Distance education: A systems view*. Belmont, CA: Wadsworth.
- Mostafa, M. R. (2008). Evaluation of the Implementation, Use and Effect of A Computerized Management Information System In College of Business Utara Malaysia.

- Nelson, M. L., & Hauck, R. V. (2008). Clicking to learn: A case study of embedded radio-frequency based clickers in an introductory management information systems course. *Journal of Information Systems Education*, 19(1), 55–64.
- Nitish.S, Georg.F, Jonas A.H & Mike C.H.C, (2004) Understanding international Web site usage a cross-national study of German, Brazilian, and Taiwanese online consumers. *International Marketing Review*. 23(1), 83-97
- Northrup, P. (2002). Online learners' preferences for interaction. *The Quarterly Review of Distance Education*, 3, 219-226.
- Northrup, P. (2005). *The online campus: A systems view of learner support*. Unpublished manuscript, The University of West Florida.
- Norusis, M. J. (1999). *SPSS/PC+ Statistics 6.0 for the IBM PC/XT/AT and PS/2*. Prentice Hall, Library of Congress, USA
- OECD (2005), *E-learning in Tertiary Education: Where Do we Stand?*. 292
- Open Source Initiative. (2008). <http://www.opensource.org/>
- Oppenheim, A. (1986). *Questionnaire Design and Attitude Measurement*. Gower Publishing Company: London.
- Paladino, A. (2008). Creating an interactive and responsive teaching environment to inspire learning. *Journal of Marketing Education*, 30, 185–188.
- Pallant, J. (2005). *SPSS Survival Manual*. Milton Keynes: Open University Press.
- Passerini, K. and Granger, M.J. (2000), “A developmental model for distance learning using the internet”, *Computers and Education*, 34 (1), 1-15.
- Peslak, A.R., Subramanian, G.H. and Clayton, G.E. (2007), “The phases of ERP software implementation and maintenance: a model for predicting preferred ERP use”, *The Journal of Computer Information Systems*, 48 (2), 25-34.
- Pinsonneault, A., & Kraemer. K.L (1993). Survey research methodology in management information system: an Assessment. *Journal of Management Information Systems*, 10, 75-105.

- Ramayah, T. (2002). Impact of Perceived usefulness, Perceived ease of use and Perceived Enjoyment on Intention to shop online.
- Randall, D. M., and A. M. Gibson. 1991. "Ethical Decision Making in the Medical Profession: An Application of the Theory of Planned Behavior." *Journal of Business Ethics*, 10(2), 111-122.
- Reigluth, C. M. (1999). *Instructional design theories and models: A new paradigm of instructional theory*, Lawrence Erlbaum Associates, Publishers, Mahmah, N.J
- Research Institute of Bangkok University. (2002). *Model of e-Learning Adoption: Case Study in Bangkok University Undergraduate Students*. Retrieved on June 08, 2008, from <http://research.bu.ac.th/extra/article017.html>
- Robling, G., Malmi, L., Claney, M., Joy, M., Kerren, A., Korhonen, A., Moreno, A., Naps, T., Oechsle, R., Radenski, A., Ross, R.J. & Velazquez, J.A., (2008) "Enhancing Learning Management Systems to Better Support Computer Science Education", 40(4).
- Ronen. M., Kohen V, D., & Raz F., N. (2006). *Structuring, Sharing and Reusing Asynchronous Collaborative Pedagogy*. ICLS.
- Roscoe, J.T. (1975). *Fundamental Research Statistics for the Behavioural Sciences*, 2<sup>nd</sup> edition. New York: Holt Rinehart & Winston
- Rosenberg, M.J. (2001), *E-learning: Strategies for Delivering Knowledge in the Digital Age*, McGraw-Hill Professional, New York, NY.
- Saba, F. (1999). Architecture of dynamic distance instructional and learning systems. *Distance Education Report*, 3(8), 1-5.
- Sachs, D. & Hale, N. (2003), "Pace University's focus on student satisfaction with student services in online education", *Journal of Asynchronous Learning Networks*, 7 (2), 36-42.
- Salkind, N. J. (2000). *Exploring research*. (4<sup>th</sup> Ed.). Upper Saddle River, NJ: Prentice Hall.
- Sanchez, R. A. & Hueros, A. D. (2010). Motivational factors that influence the acceptance of Moodle using TAM. *Computers in Human Behavior*, 26, 1632-1640.
- Savage, S. J. (2009). The Effect of Information Technology on Economic Education. *Journal of Economic Education*, 40, 337-353.



- Sekaran, U. (2003). *Research Methods for Business: A Skill Building Approach*. (4th Edition). Chichester: John Wiley.
- Sekaran, U. (2009). *Research Methods for Business: A Skills-Building Approach*. (6<sup>th</sup> Ed). New York: John Wiley & Sons, Inc.
- Sekaran, U. and Bougie, R. (2013) *Research Methods for Business: A Skills-Building Approach*. (6<sup>th</sup> Ed). New York: John Wiley & Sons, Inc.
- Simpson, S. (2007, January 28). Faculty telling students to “click”: Technology makes it easier for professors to give quizzes and foster classroom discussions. *Knight Ridder Tribune Business News*, 1.
- Sloan Consortium. (2002). *The Sloan Consortium: The 5 pillars*. Retrieved from <http://www.sloan-c.org/>
- Stone, L., Escoe, G. M., & Schenk, R. (1999). Multimedia instruction methods. *Journal of Economic Education*, 30, 265–275.
- Suleiman, Alhaji Ahmad, Umar Bawa Chinade & Abdu Muhammad Gambaki (2012). The need for MOODLE as a learning management system in Nigerian Universities: Digesting University Utara Malaysia Learning Zone as a case study. *Academic Research International*, 2(3), 444-458.
- Snyder, M. & DeBono, K. G. (1985). Appeals to images and claims about quality: Understanding the psychology of advertising. *Journal of Personality and Social Psychology*, 49, 586-597.
- Taylor, P. S. (2007). Can clickers cure crowded classes? *Maclean's*, 120(26/27), 73.
- Terreri, A. and T. Simons (2005). *What Are They Thinking?* Presentations 19 (2), 36.
- Toral, S. L., Barrero, F., Martinez-Torres, M. R., Gallardo, S., & Duran, M. J. (2009). Modeling learning satisfaction in an electronic instrumentation and measurement course using structural equation models. *IEEE Transactions on Education*, 52(1), 190–199.
- Unal, Z. & Unal, A. (2011). Evaluating and Comparing the Usability of Web-Based Course Management systems. *Journal of Information Technology Education*, 10, 19-38.
- Unmuth, K. L. (2004, March 30). Wichita, Kansas college students try out classroom interaction technology. *Knight Ridder Tribune Business News*, 1.
- Wernet, S.P., Olliges, R.H., Delicath, T.A. (2000). SOCIAL work education, INTERNET (Computer network) in education, *Research on Social Work Practice*, 10 (4), 487-505.

- Zhang, D. (2005), “Interactive multimedia-based e-learning: a study of effectiveness”, *The American Journal of Distance Education*, 19 (3), 149-62.
- Xu, Y., Summers, T. A., and Belleau, B. D. (2004), “Who Buys American Alligator? Predicting Purchase Intention of a Controversial Product,” *Journal of Business Research*, 57, 1189–98.
- Zikmund, W. G. (1997). *Business Research Method*. (5th Edition). Fort Worth: The Dryden Press.
- Zikmund, W. G., Babin, B. J., Carr J. C., and Griffin M. (2010), “ *Business Research Method*”, 8<sup>th</sup>ed. International Student Edition Package, South-Western, Cengage Learning.

# APPENDICES

## Appendix 1: Letter of Application



**UUM**  
Universiti Utara Malaysia

Othman Yeop Abdullah Graduate School of Business  
Universiti Utara Malaysia  
06010 UUM Sintok  
Kedah Darul Aman, Malaysia  
Tel : (604) 928 5656/5657  
Fax: (604) 928 5220  
Website: [www.oyagsb.uum.edu.my](http://www.oyagsb.uum.edu.my)

KEDAH AMAN MAKMUR • BERSAMA MEMACU TRANSFORMASI

UUM/OYAGSB/K-14  
01 October 2013

TO WHOM IT MAY CONCERN

Dear Sir/Madam

DATA COLLECTION

COURSE : DISSERTATION  
COURSE CODE : BPMZ 69912  
LECTURER : DR. ALIYU OLAYEMI ABDULLATEEF

This is to certify that the following is a postgraduate student from the OYA Graduate School of Business, Universiti Utara Malaysia. She is pursuing the above mentioned course which requires her to undertake an academic study and prepare an assignment. The details are as follows:

NO.	NAME	MATRIC NO.
1.	Anisah Binti Abdul Ghani	812338

In this regard, I hope that you could kindly provide assistance and cooperation for her to successfully complete the assignment given. All the information gathered will be strictly used for academic purposes only.

Your cooperation and assistance is very much appreciated.

Thank you.

"SCHOLARSHIP, VIRTUE, SERVICE"

Yours faithfully

KARTINI BINTI DATO' TAJUL URUS  
Assistant Registrar  
on behalf of  
Dean  
Othman Yeop Abdullah Graduate School of Business

c.c - Student's File (812338)



The Eminent Management University

## Appendix 2: Questionnaire



### SURVEY QUESTIONNAIRE

<p><b>THE IMPACT OF STUDENTS ATTENTION, PREPARATION AND ATTITUDE ON SATISFACTION WITH ONLINE LEARNING ZONE</b></p>
--

Dear Participant,

I am a postgraduate student at College of Business, Universiti Utara Malaysia. Please be informed that you have been selected to participate in this research that is designed to examine UUM students' attention, preparation and attitude towards online learning zone. This questionnaire is partial requirement in completing a project paper for Master of Science (Management). It will take no longer than 10 minutes to complete the questionnaire.

Your cooperation to answer this questionnaire honestly is needed in order to produce a reliable research report. All information given in this questionnaire will be kept **STRICTLY** and **CONFIDENTIAL** for academic purpose only.

Thank you very much for your time and cooperation.

**Anisah Binti Abdul Ghani**  
MSc Management  
College of Business (COB)  
Universiti Utara Malaysia

## SECTION A: DEMOGRAPHICS

Please tick (x) your answer on the following question and gives appropriate answers for the questions below.

1) Gender

☐ Male

☐ Female

2) Age

☐ 21-25

☐ 26-30

☐ 31-35

☐ More than 35

3) Educational Level

☐ Bachelor degree

☐ Master degree

☐ PhD degree

4) How often do you use learning zone to prepare for any course before entering the classes?

☐ Never

☐ Rarely

☐ Sometimes

☐ Often

☐ Very Often

5) How many hours do you open learning zone for any course in a week?

☐ 0-2 hours

☐ Above 2 - 4 hours

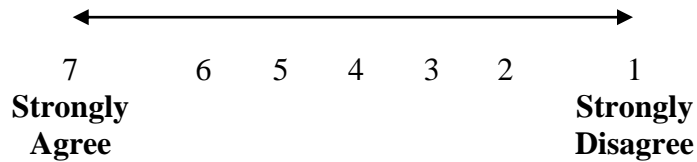
☐ Above 4 - 6 hours

☐ Above 6 - 8 hours

☐ More than 8 hours

## SECTION B: ATTENTION

Instruction: Please circle (O) the number that represents your most appropriate answer.

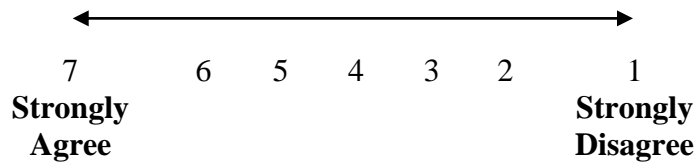


## ATTENTION

In my opinion, Learning Zone helps me to...

1	Pay more attention to what is going on in lecture when conceptual questions will be presented	1	2	3	4	5	6	7
2	Review class materials in a fun way	1	2	3	4	5	6	7
3	Participate in the class	1	2	3	4	5	6	7
4	Respond with <i>e-Learning</i> .	1	2	3	4	5	6	7
5	Increase my performance in learning	1	2	3	4	5	6	7

## Section C: PREPARATION



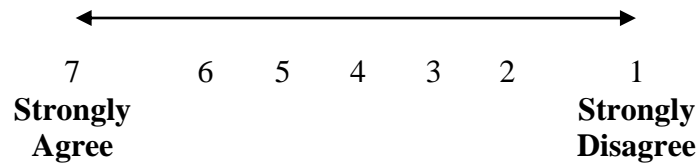
## PREPARATION

In my opinion, Learning Zone helps me...

1	In the learning process	1	2	3	4	5	6	7
2	To encourage working harder (eg. answer questions in class)	1	2	3	4	5	6	7
3	To easily gather material needed for the course	1	2	3	4	5	6	7
4	Prepare for exams	1	2	3	4	5	6	7
5	To spend time on particular chapter for exam	1	2	3	4	5	6	7

## SECTION D: ATTITUDES

Instruction: Please circle (O) the number that represents your most appropriate answer



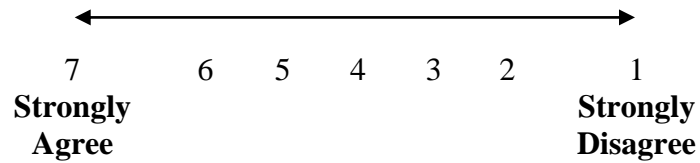
## ATTITUDES

1	I thought this course did focus too much on using learning zone	1	2	3	4	5	6	7
2	Overall I thought, the advantages of using response learning zone outweighed the disadvantages in this course	1	2	3	4	5	6	7
3	I think this course should continue to use Learning Zone	1	2	3	4	5	6	7
4	I think other lecturer/professors should use Learning Zone in their courses	1	2	3	4	5	6	7
5	I am willing to use learning zone	1	2	3	4	5	6	7
6	I will recommend others to use Learning zone	1	2	3	4	5	6	7



## SECTION E: USER SATISFACTION

Instruction: Please circle (O) the number that represents your most appropriate answer.



## USER SATISFACTION

1.	My experience at using the Learning Zone was good	1	2	3	4	5	6	7
2.	My first time using Learning Zone worked out well	1	2	3	4	5	6	7
3.	I am happy when lecturers actively used Learning Zone	1	2	3	4	5	6	7
4.	I am confident it was the right thing to use Learning Zone	1	2	3	4	5	6	7
5.	Learning Zone provides up-to-date information	1	2	3	4	5	6	7
6.	Learning Zone is user-friendly	1	2	3	4	5	6	7
7.	I am satisfied in using Learning Zone	1	2	3	4	5	6	7

**Thank you for your cooperation**

### Appendix 3: Frequencies Analysis

#### a) Statistics

		Gender	Age	Education Level	How often do you use learning zone to prepare for any course before entering the classes?	How many hours do you open learning zone for any course in a week?
N	Valid	378	378	378	378	378
	Missing	0	0	0	0	0
Mean		1.6958	1.9392	1.7275	3.3942	1.8122
Skewness		-.854	.790	.488	-.526	1.399
Std. Error of Skewness		.125	.125	.125	.125	.125
Kurtosis		-1.277	-.744	-1.058	-.244	.996
Std. Error of Kurtosis		.250	.250	.250	.250	.250

#### b) Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	115	30.4	30.4	30.4
Valid female	263	69.6	69.6	100.0
Total	378	100.0	100.0	

#### c) Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 21-25	180	47.6	47.6	47.6
Valid 26-30	94	24.9	24.9	72.5
Valid 31-35	51	13.5	13.5	86.0
Valid More than 35	53	14.0	14.0	100.0
Total	378	100.0	100.0	

#### d) EducationLevel

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Bachelor Degree	170	45.0	45.0	45.0
Valid Master Degree	141	37.3	37.3	82.3
Valid PhD Degree	67	17.7	17.7	100.0
Total	378	100.0	100.0	

**e) How often do you use learning zone to prepare for any course before entering the classes?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid never	29	7.7	7.7	7.7
rarely	40	10.6	10.6	18.3
sometimes	116	30.7	30.7	48.9
often	139	36.8	36.8	85.7
very often	54	14.3	14.3	100.0
Total	378	100.0	100.0	

**f) How many hours do you open learning zone for any course in a week?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-2hours	216	57.1	57.1	57.1
Above 2-4hours	78	20.6	20.6	77.8
Above 4-6hours	43	11.4	11.4	89.2
Above 6-8hours	21	5.6	5.6	94.7
More than 8hours	20	5.3	5.3	100.0
Total	378	100.0	100.0	

#### Appendix 4: Descriptive Analysis

##### a) Attention

	N	Minimum	Maximum	Mean	Std. Deviation
In my opinion, Learning Zone helps me to increase my performance in learning	378	1.00	7.00	4.8280	1.51020
In my opinion, Learning Zone helps me to pay more attention to what is going on in lecture when conceptual questions will be presented	378	1.00	7.00	4.7222	1.59727
In my opinion, Learning Zone helps me to participate in the class	378	1.00	7.00	4.6772	1.56607
In my opinion, Learning Zone helps me to respond with e-Learning	378	1.00	7.00	4.5899	1.54288
In my opinion, Learning Zone helps me to review class materials in a fun way	378	1.00	7.00	4.4788	1.46065
Valid N (listwise)	378				

**b) Preparation**

	N	Minimum	Maximum	Mean	Std. Deviation
In my opinion, Learning Zone helps me to easily gather material needed for the course	378	1.00	7.00	5.1164	1.50585
In my opinion, Learning Zone helps me in the learning process	378	1.00	7.00	4.8360	1.58560
In my opinion, Learning Zone helps me to encourage working harder (eg. answer questions in class)	378	1.00	7.00	4.7619	1.49497
In my opinion, Learning Zone helps me prepare for exams	378	1.00	7.00	4.7619	1.61604
In my opinion, Learning Zone helps me to spend time on particular chapter for exam	378	1.00	7.00	4.7566	1.45636
Valid N (listwise)	378				

**c) Attitude**

	N	Minimum	Maximum	Mean	Std. Deviation
I think other lecturer/professors should use Learning Zone in their courses	378	1.00	7.00	5.4259	1.34739
I am willing to use learning zone	378	1.00	7.00	5.4259	1.48237
I will recommend others to use Learning zone	378	1.00	7.00	5.3016	1.49235
I think this course should continue to use Learning Zone	378	1.00	7.00	5.1587	1.43144
Overall I thought, the advantages of using response learning zone outweighed the disadvantages in this course	378	1.00	7.00	4.5582	1.35406
I thought this course did focus too much on using learning zone	378	1.00	7.00	4.2593	1.50383
Valid N (listwise)	378				

**d) User Satisfaction**

	N	Minimum	Maximum	Mean	Std. Deviation
I am satisfied in using Learning Zone	378	1.00	7.00	5.2302	1.54763
I am happy when lecturers actively used Learning Zone	378	1.00	7.00	5.2169	1.51229
I am confident it was the right thing to use Learning Zone	378	1.00	7.00	5.1772	1.39640
Learning Zone is user-friendly	378	1.00	7.00	5.1429	1.51936
Learning Zone provides up-to-date information	378	1.00	7.00	5.0741	1.47654
My experience at using the Learning Zone was good	378	1.00	7.00	4.8968	1.41513
My first time using Learning Zone worked out well	378	1.00	7.00	4.8677	1.33846
Valid N (listwise)	378				

## Appendix 5: Reliability Analysis

### Reliability Statistics (Attention)

Cronbach's Alpha	N of Items
.939	5

### Reliability Statistics (Preparation)

Cronbach's Alpha	N of Items
.946	5

### Reliability Statistics (Attitude)

Cronbach's Alpha	N of Items
.895	6

### Reliability Statistics (User Satisfaction)

Cronbach's Alpha	N of Items
.933	7

## Appendix 6: Factor Analysis

### a) Attention

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	1503.044
	df	10
	Sig.	.000

#### Component Matrix<sup>a</sup>

	Component
	1
In my opinion, Learning Zone helps me to pay more attention to what is going on in lecture when conceptual questions will be presented	.912
In my opinion, Learning Zone helps me to review class materials in a fun way	.891
In my opinion, Learning Zone helps me to participate in the class	.888
In my opinion, Learning Zone helps me to respond with e-Learning	.885
In my opinion, Learning Zone helps me to increase my performance in learning	.906

Extraction Method: Principal Component Analysis.

a. 1 components extracted.



**b) Preparation**

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	1659.893
	df	10
	Sig.	.000

**Component Matrix<sup>a</sup>**

	Component
	1
In my opinion, Learning Zone helps me in the learning process	.907
In my opinion, Learning Zone helps me to encourage working harder (eg. answer questions in class)	.892
In my opinion, Learning Zone helps me to easily gather material needed for the course	.901
In my opinion, Learning Zone helps me prepare for exams	.917
In my opinion, Learning Zone helps me to spend time on particular chapter for exam	.921

Extraction Method: Principal Component Analysis.

a.1 components extracted.

**c) Attitude**

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.860
Bartlett's Test of Sphericity	Approx. Chi-Square	1777.426
	df	15
	Sig.	.000

**Component Matrix<sup>a</sup>**

	Component	
	1	2
I thought this course did focus too much on using learning zone	.519	.757
Overall I thought, the advantages of using response learning zone outweighed the disadvantages in this course	.686	.541
I think this course should continue to use Learning Zone	.911	-.107
I think other lecturer/professors should use Learning Zone in their courses	.920	-.243
I am willing to use learning zone	.909	-.295
I will recommend others to use Learning zone	.905	-.176

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

**d) User Satisfaction**

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.882
Bartlett's Test of Sphericity	Approx. Chi-Square	2086.450
	df	21
	Sig.	.000

**Component Matrix<sup>a</sup>**

	Component
	1
My experience at using the Learning Zone was good	.844
My first time using Learning Zone worked out well	.734
I am happy when lecturers actively used Learning Zone	.849
I am confident it was the right thing to use Learning Zone	.882
Learning Zone provides up-to-date information	.849
Learning Zone is user-friendly	.860
I am satisfied in using Learning Zone	.891

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

## Appendix 7: Correlation Analysis

		Correlations			
		Attention	Preparation	Attitudes	User Satisfaction
Attention	Pearson	1	.834**	.703**	.782**
	Correlation				
	Sig. (1-tailed)				
Preparation	N	349	349	349	349
	Pearson				
	Correlation				
Attitudes	Sig. (1-tailed)	.834**	1	.788**	.825**
	N				
	Pearson				
User Satisfaction	Correlation	.703**	.788**	1	.809**
	Sig. (1-tailed)				
	N				
	Pearson	.782**	.825**	.809**	1
	Correlation				
	Sig. (1-tailed)				
N		349	349	349	349

\*\* . Correlation is significant at the 0.01 level (1-tailed).

## Appendix 8: Regression Analysis

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.793 <sup>a</sup>	.628	.626	.71316	.628	292.177	2	346	.000

a. Predictors: (Constant), Preparation, Attention

b. Dependent Variable: Attitudes

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	297.199	2	148.599	292.177	.000 <sup>b</sup>
Residual	175.973	346	.509		
Total	473.172	348			

a. Dependent Variable: Attitudes

b. Predictors: (Constant), Preparation, Attention

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.719	.143		12.028	.000
	Attention	.128	.050	.151	2.543	.011
	Preparation	.557	.050	.662	11.157	.000

a. Dependent Variable: Attitudes

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
2	.809 <sup>a</sup>	.655	.654	.72194	.655	658.930	1	347	.000

a. Predictors: (Constant), Attitudes

b. Dependent Variable: User Satisfaction

### ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	343.437	1	343.437	658.930	.000 <sup>b</sup>
2 Residual	180.858	347	.521		
Total	524.294	348			

a. Dependent Variable: User Satisfaction

b. Predictors: (Constant), Attitudes

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	.818	.171		4.781	.000
	Attitudes	.852	.033	.809	25.670	.000

a. Dependent Variable: User Satisfaction