

RELATIONSHIP BETWEEN INFORMATION TECHNOLOGY BENEFITS, ATTITUDES
AND EFFECTIVENESS ON EMPLOYER NEEDS ON ACCOUNTING INFORMATION
SYSTEM PROGRAMS (AIS): A CASE FROM HATYAI SONKHLA PROVINCE,
THAILAND

Haida Mamat

UNIVERSITI UTARA MALAYSIA

2011

I

RELATIONSHIP BETWEEN INFORMATION TECHNOLOGY BENEFITS, ATTITUDES
AND EFFECTIVENESS ON EMPLOYER NEEDS ON ACCOUNTING INFORMATION
SYSTEM PROGRAMS (AIS): A CASE FROM HATYAI SONKHLA PROVINCE,
THAILAND

A thesis submitted to the graduate school in partial fulfillment of the requirements for the degree
of Master of Science (International Accounting)

Universiti Utara Malaysia

By

HAIDA MAMAT

2011

II

ABSTRACT

This study was conducted to explore the relationship of employer needs accounting information system programs (AIS) and company behavior among the company in Hatyai Songkhla Province, Thailand. Company's behavior and employer needs AIS programs were treated as independent and dependent variables respectively. Company's behavior measured with respect to IT benefits, Attitudes and AIS effectiveness. Employer needs AIS programs were measured with the perception of the quality of information by users. A total of 203 respondents from the population of 24 companies participated in this study. Data was collected through the distribution of questionnaire, which was designed to measure the companies behavior with a statement on a five liker scale point, ranging from one (strongly disagree) to five (Strongly agree). Three hypotheses were tested for this study. Data was analyzed using the SPSS software to obtain the frequencies, means, medium, standard, deviation and correlations between variables. The results show that three independent have positive relationship with employer needs AIS Programs.

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and Most Merciful

I wish to express my deepest gratitude and heartfelt thanks to my supervisor, Mr. Abdul manaf Bohari for this discerning guidance, positive criticisms and valuable advice throughout the undertaking of this study. His excellent guidance and supervision has rendered me with a minimum pressure and has made this learning process an extraordinary experience.

I lovingly acknowledge my family, for their support, tireless patience, and faith in me to complete their tedious task. To my grandmother and my mother, Nureeyah Deraman- you are the source of my spiritual direction and focus. To my father, Muhamadnor Mamat – I thank you for your legacy of educational excellence. To my brother and my sister, Nikman and Sunisa Mamat – both of you are my source of inspiration, joy and happiness. To my lovely friends, Ahlam, Buppachart, Suchada, and Saranya thank for your friendly, especially for my best friend Amer thanks for your kindly help, timelines, and take care of me. All of you have been instrumental in this never ending academic journey and I really appreciate your morale supported directly or indirectly and love each one of you.

My heartfelt thanks to all dear the respondents, for their cooperation in completing the questionnaires. Without their help this study might have not been possible. Lastly, but not least, very big thank you to Hatyai University for giving me the opportunity and supporting my postgraduate studies at Universiti Utara Malaysia.

Haida Mamat

PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a postgraduate degree from the University 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 their absence by the Dean of the Graduate School. It is understood that any copying or publication or use of this thesis 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 University Utara Malaysia for any scholarly use which may be made of any material from my thesis.

Dean Othman Yeop Abdullah Graduate School of Business

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

Malaysia

TABLE OF CONTENTS

	Pages
ABSTRACT	III
ACKNOWLEDGEMENT	IV
PERMISSION TO USE	V
TABLE OF CONTENTS	VI
LIST OF TABLES	IX
LIST OF FIGURES	X
CHAPTER 1 INTRODUCTION	
1.0 An Overview	1
1.1 Problem statement	8
1.2 Research questions	10
1.3 Research objectives	10
1.4 Significant of Study	11
1.5 Organization of Study	11
CHAPTER 2 LITERATURE REVIEW	
2.0 Introduction	12
2.1 Accounting profession in Thailand	12
2.2 Information technology development in Thailand	13
2.3 The role of Thai government in developing information Technology sector	15
2.4 Literature related to accounting information systems	16
2.4.1 The History of Accounting Information Systems (AIS)	16

2.4.2 Overview of Information System, Management Information System and Accounting Information System	21
2.4.3 Definition of Accounting Information System Research	25
2.4.4 Categories of Accounting Information System Research	27
2.4.4.1 Design Science Research	27
2.4.4.2 Social Science Research	28
2.5 Accounting Information Systems (AIS)	29
2.5.1 Information Technology Benefits	31
2.5.2 Attitudes	38
2.5.3 Effectiveness	40
2.6 Conclusion	41

CHAPTER 3 METHODOLOGIES

3.0 Introduction	42
3.1 Conceptual Framework	42
3.1.1 Usage needs Accounting Information Systems	42
3.1.2 Information Technology Benefits	44
3.1.3 Attitude Behavioral	45
3.1.4 AIS Effectiveness	46
3.2 Theoretical Framework	46
3.3 Research Hypotheses	47
3.4 Research Population and Sample	48
3.5 Sampling Technique	48

3.6 Data Collection	48
3.7 Instrument Questionnaires	48
3.8 Data Analysis	49
3.9 Validity	50
3.10 Reliability Analysis	50
3.11 Conclusion	51

CHAPTER 4 DATA ANALYSIS

4.0 Introduction	52
4.1 Personal Information	52
4.2 Company background	53
4.3 Accounting Information Systems	54
4.4 Employer needs AIS Programs	56
4.5 Regression Analysis	58
4.6 Correlation Analysis	59
4.7 Conclusion	63

CHAPTER 5 DISCUSSIONS, RECOMMENDATION AND CONCLUSION

5.0 Introduction	64
5.1 Discussion	64
5.2 Recommendations for future research	65

REFERENCES	66
-------------------	----

APPENDIXES

LIST OF TABLES

Table 1.1	The list name of Accounting Information System Programs (AIS)	3
Table 1.2	Accounting Information System Programs produced by Thai business	6
Table 1.3	Accounting Information Systems Programs produced by International business	7
Table 2.0	Summary of IT policy objectives	14
Table 2.1	Summary of literature in IT benefits	32
Table 2.2	IT benefits (Dimensions and items)	35
Table 3.1	The propose layout of the questionnaire	49
Table 3.2	Results by Reliability Analysis	51
Table 4.1	The information on respondent's personal	52
Table 4.2	The information on respondent's companies	53
Table 4.3	The mean, minimum and maximum and scale for AIS	54
Table 4.4	Summary of average mean score for AIS dimensions	56
Table 4.5	Descriptive statistics for employee or usage needs AIS Programs variable	56
Table 4.6	Summary of average mean score for the employee needs AIS dimentions	57
Table 4.7	The average mean score for the employee needs AIS Programs	57
Table 4.8	Model Summary	58
Table 4.9	Regression Analysis	58
Table 4.10	Correlation between information technology system (IT benefits) and employee needs AIS Programs	59
Table 4.11	Correlation between attitudes and employee needs AIS Programs	60
Table 4.12	Correlation between AIS effectiveness and employee needs AIS Programs	62

LIST OF FIGURES

Figure 2.1	Organization Structure of Federation of Accounting Profession Thailand	12
Figure 2.2	Theory of the reason action	39
Figure 2.3	Technology Acceptance Model	40
Figure 3.1	Conceptual Framework on employee needs AIS Programs	47

CHAPTER ONE

INTRODUCTION

1.0 An Overview

The purpose of this study is to examine the employer needs from accounting information systems programs, case from Hatyai, Songkhla province, Thailand. Accounting Information Systems are generally divided into two known as Business Software and Accounting Software. Accounting Software are program was developed for use specifically in accounting are responsible for recording and reporting processes related to transactions that occur from the moment of a general account journal. Go through the list of ledger books and summary of the transactions in the form of financial statements. Current accounting software is frequently part of the ERP Package which programs are very popular; examples of these programs are SAP R / 3, Oracle and Crystal Formula. Business Software are general business applications (Business Software) is a program used to information management in the organization. It is the extra flexibility in the presentation with data for management decisions such as MS Word, Excel, PowerPoint and Access etc.

Accounting Information Systems (AIS) is a system that contains four subsystems, i.e. expenditure cycle, revenue cycle, production (or conversion) cycle, and financial cycle (Wilkinson, 2000)

1. *Expenditure cycle module* is the system that collects and processes the accounting information involving purchase requisition, purchase order, receiving, and voucher payment system. Information from this cycle helps to control the cost of goods sold, delivery cost, and operational expenditures.

The contents of
the thesis is for
internal user
only

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50: 179-211.
- Arnold, T., & Sutton, S. G. (2001). The future of behavioral accounting (information systems) research. *Advances in Accounting Behavioral Research*, 4, 141-154.
- Arnold, T., & Sutton, S. G. (2002). Researching accounting as an information system discipline. *Information Systems Section of the American Accounting Association*.
- Al-Bayati, H. A., & Hassan, A. A. (1992). The entrance to the Information Systems Management. Almosel, Iraq: Directorate of Archives of Printing and Publishing.
- Al-Mushayt, O. S. (2000). An empirical investigation of factors influencing the successful treatment of organizational issues in information systems development Loughborough University, UK.
- Altbach, Philip G. & Toru Umakoshi (2004) Asian Universities: Historical Perspectives and Contemporary Challenges. Baltimore, Md.: Johns Hopkins University Press.
- Asta, R & Linas, S. (2003) "Development of a model for evaluating the effectiveness of accounting information systems". Lithuanian University of Agriculture.
- Bhatt, G. D. (2001). Knowledge management in organizations: examining the interaction between technologies, techniques, and people. *Journal of Knowledge Management*, 5(1): 68-75.
- Bailey, J. E., & Pearson, S. W. (1983). Development of a tool for measuring and analyzing computer user satisfaction. *Management Science*, 29(5), 530-545.

- Ballantine, J., Bonner, M., Levy, M., Martin, A. L., & Powell, P. L. M. (1996). The 3-D model of information systems success: The search for the dependent variable continues. *Information Resources Management Journal*, 9(4), 5-14.
- Baroudi, J. J., & Orlikowski, W. J. (1988). A short-form measure of user information satisfaction: A psychometric evaluation and notes on use. *Journal of Management Information Systems*, 4(4), 44-59.
- Brady, J.A., E.F. Monk & B.J. Wagner (2001): “ Concepts in enterprise resource planning”, Course Tectnology a division of Thomson learning, Bostom, MA, USA
- Bressler, L.A. & Bressler, M.S. (2006). How entrepreneurs choose and use accounting information systems. *Journal of Strategic Finance*, 87(12), pp 56-60.
- Bocij, P., Chaffy, D., Greasley, A., & Hiicke, S. (2003). Business information system(2nded.). Prentice Hall.
- Borthick, A. F.; Clark, R. L. (1990). Making accounting information systems work: An empirical investigation of the creative thinking paradigm. *Journal of Information Systems*, 4(3): 48-62.
- CODA, G. (2007).*CODA*: State-of-the-art accounting software [Electronic Version]. Retrieved 12-12-2006, from <http://www.coda.com/Accounting Software>.
- Colantoni, C. S., Manes, R. P., & Whinston, A., (1971).A unified approach to the theory of accounting and information systems. *The Accounting Review*, 90-102.
- Curtis, G. (1995). Business Information Systems: Analysis, Design and Practice. Wokingham: *Addison-Wesley Publishing Company*.

- Davis, F.D., Bagozzi, R.P. & Warshaw, P.R. (1989), "User acceptance of computer technology: a comparison of two theoretical models", *Management Science*, Vol. 35 No. 8, pp. 982, 1003.
- Davis, F.D. (1989). "Perceived usefulness, Perceived ease of use, and user acceptance of information technology". *MIS Quarterly*, September, 319-340.
- Davis, F.D. (1993). "User acceptance of Information technology: System characteristics, User perceptions and behavioral impacts. *International Journal of Man machine studies*, 475-487.
- Davidson, H.J. & R.M. Trueblood. 1961. "Accounting for decision making". *The Accounting Review*. October, 577-582.
- David, J. S., Dunn, C. L., McCarthy, W. E., & Poston, R. S. (1999). The research pyramid: A framework for accounting information systems research. *Journal of Information Systems*, 13(1), 7-30.
- DeLone, W., & McLean, E. (1992). Information system success: The quest for dependent variables. *Information Systems Research*, 3(1), 60-95.
- DeLone, W. H., & McLean, E. R. (2002). Information systems success revisited. (IEEE0-7695-1435-9/20).
- Dixon, Chris J., (1999). *The Thai Economy: Uneven Development and Internationalization*. New York: Routledge.
- Eldahrawi, K. A. M., & Mohamed, S. K. (2000). *Accounting information systems* (1sted.). Alexandria: Dar Aljameah Aljadedeh.
- Elena, U.G., Raquel, P.E. & Clara, M.C., (2011) "The impact of Accounting Information Systems(AIS) on performance measures': empirical evidence in Spanish SMEs" *The international Journal of Digital Accounting Research*, Vol. 11, pp. 25-43.

- Everdinge, Y. V., Hillegersberg, J., & Waarts, E. (2000). ERP adoption by European midsize companies. *Communications of the ACM*, 43, 27-31.
- Everest, G. C., & Weber, R., (1977). A relational approach to accounting models. *The Accounting Review*, volume number, 340-359.
- Fishbein, M. & Ajzen, I., (1975). Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research, *Addison-Wesley, Reading, MA*.
- Gelinas, U. J., Sutton, S. G., & Hunton, J. E. (2005). Accounting Information Systems (6thed.). United States: Thomson South-Western.
- Gordon, L.A. & Sellers, F.E., (1984) "Accounting and Budgeting Systems: The Issue of Congruency", *Journal of Accounting and Public Policy*, Vol. 3, 259-292.
- Hall, J. A. (2000). Accounting information systems (3rded.). United Kingdom: South-Western Publishing.
- Hatzithomas, L., & Fotiadis, T. (2007). The success of ERP systems: A comparative study between open source and commercial systems.
- Hatzithomas, L., Stamelos, I., Fotiadis, T., & Mylonakis, J. (2007). Quality and effectiveness of enterprise resource planning - customer relationship management systems: Implications for information systems marketing strategies. *The Journal of Applied Business Research*, 23(3).
- Hongjiang Xu. (2003). "Data quality issues for accounting information systems' implementation: Systems, Stakeholders, and Organizational factors". *Journal of technology Research*, Butler University.
- Honig, S. A. (1999). The changing landscape of computerized accounting systems. *The CPA Journal*, 69(5), 14-20.

- Hunton, J. (2002). Blending information and communication technology with accounting research. *Accounting Horizons*, 16(1), 55-67.
- IFAC, I. (2003). Integrating Information Technology Across Accounting Curriculum: The experience of Certified General Accountants' Association of Canada. *IFAC Education Committee*.
- Intarakumnerd, P. & Panthawi, P. (2003). Science and Technology Development Toward a knowledge – based Economy: the case of Thailand, *IDE Publications, Bangkok*, 89-132.
- Ismail, N.A. & King, M., (2005) “Firm Performance and AIS alignment in Malaysian SMEs”, *International Journal of Accounting Information Systems*, Vol. 6, 241-259.
- Ives, B., & Learmonth, G. P. (1984).The information system as a competitive weapon. *Communications of the ACM*, 27(12), 1193-1201.
- Kim, W. (2009).Cloud computing: Today and tomorrow. *Journal of Object Technology*, 8 (1),65-72.
- Kim, K., (1989). “User Satisfaction: A Synthesis of three Different Perspectives International. *Journal of Accounting Information Systems*, Vol. 4, pp. 1-12.
- King, J. L., & Scherms, E. L. (1978).Cost-benefits analysis in information systems developments and operation. *Computing Surveys*, 10(1), 19-34.
- Kuaus Markus, H. (2001). “Object-Oriented Accounting: A framework for a Modern Accounting Information System” University Of Zurich, Switzerland. Lee, S.M., Lee, H., Kim, J. & Lee, S. (2007). ASP system utilization: Customer satisfaction and user performance. *Industrial Management and Data Systems*. 107(2), 145-165.

- Lin, P.P. (2004). Web-based accounting systems. *The CPA Journal*. October.
- March, S. T., & Smith, G. F. (1995). Design and natural science research on information technology. *Decision Support Systems*, 15(4), 251-266.
- Mansour, A., & Abu-Noor, M. (1999). Analysis of information systems using the computer. Amman, Jordan: Almea'ayar.
- Mauldin, E. G., & Ruchala, L. V. (1999). Towards a meta-theory of accounting information systems. *Accounting, Organizations and Society*, 24, 317-331.
- McCarthy, W. E. (1982). The REA accounting model: A generalized framework for accounting system in a shared data environment. *The Accounting Review*, 57, 554-578.
- McMickle, P. L. (1989). Accounting systems: Past, present, and future. *The Accounting Systems Journal*, 1(1), 1-3.
- Mirani, R., & Lederer, A. L. (1998). An instrument for assessing the organizational benefits of IS projects. *Decision Sciences*, 29(4), 803-838.
- Moscove, S. A., Simkin, M. G., & Bagranoff, N. A. (2001). Core concepts of accounting information system (7th ed.) England: John Wiley & Sons Ltd.
- Mulder, Niels., (1996). Inside Thai Society: An Interpretation of Everyday Life. 5th ed. Amsterdam: Pepin.
- Murthy, U. S., & Wiggins, J. C. E. (1999). A perspective on accounting information system research. *Journal of Information Systems*, 13(1), 3-6.
- Muscat, Robert J., (1990). Thailand and the United States: Development, Security, and Foreign Aid. *New York: Columbia University Press*.

- Negash, S. T., Ryanb, M., & Igbaria. (2002). Quality and effectiveness in web-based customer support systems. *Information & Management*, 40, 757-768.
- Nicolaou, A. (2000) “A Contingency Model of Perceived Effectiveness in Accounting Information Systems: Organizational Coordination and Control Effects.” *International Journal of Accounting Information Systems*, Vol. 1, pp. 91-105.
- Nusara, Phengwiriya., (2003). “Using Accounting Information Systems Programs in Songkhla, Thailand SMEs” *Journal of Hatyai University*.
- O’Brien, J. A., & Marakas, G. M. (2008). *Management information systems* (8thed). New York: McGraw Hill/Irwin.
- O’Brien, J. A. (1990). Management information system: A managerial end-user perspective. Boston: Irwin.
- O’Donnell, E. & David, J., (2000) “How information systems influence user decisions: a research framework and literature review”, *International Journal of Accounting Information Systems*, Vol. 1, 178-203.
- Porter, M., & Millar, V. E. (1985). How information gives you competitive advantage. *Harvard Business Review*, 63(4), 149-160.
- Rahman, M. & Halladay, M., (1988). Accounting Information Systems: Principles, Applications and Future Directions. *New Jersey: Prentice Hall*.
- Ramayah, T., O. Mohamad, F. Sarkawi, and L.S. Choong, (2005). Attitude and intention to use web-based supply chain management (SCM) among SMEs, *Working Paper*.
- Raymond, L., Pare, G., & Bergeron, F. (1995). Matching information technology and organisational structure: An empirical study with implications for performance. *European Journal of Information Systems*, 4, 3-16.

- Reneau, J. H., & Grabski, S. V. (1987). A review of research in computer-human interaction and individual differences within a model for research in accounting information systems. *Journal of Information Systems*, 2, 33-53.
- Revsine, L. (1970). "Data expansion and conceptual structures" *The Accounting Review*. October, 704-711.
- Rockwell, S. R., & McCarthy, W. E. (1999). REACH: Automated database design integrating first-order theories reconstructive expertise, and implementation heuristics for accounting information systems. *International Journal of Intelligent Systems in Accounting, Management, Finance*.
- Scapens, R. W., & Jayazeri, M. (2003). ERP systems and management accounting change: Opportunities or impacts? A research note. *European Accounting Review*, 12(1), 201-233.
- Shields, M.G. (2001). "E-Business and ERP. Rapid implementation and project planning", Jonh Wiley & Sous, NY, USA
- Seddon, P. B., Staples, S., Patnayakoni, R., & Bowtell, M. (1999). Dimensions of information system success. *Communications of the Association for Information Systems*, 2, no. 3es.
- Seddon, P. B. (1997). A re-specification and extension of the DeLone and McLean Model of information systems success. *Information Systems Research*, 8(3), 240-253.
- Smith, Harold E., Gayla S. Nieminen, & May Kyi Win., (2005). *Historical Dictionary of Thailand*. Lanham, Md.: Scarecrow.
- Spivak, W., & Honig, S. (1997). PC-based client-server accounting systems. *CPA Journal*, 67(11), 14-21.

- Terry, E. (2006). "Financial Information systems skills for the contemporary accountant: A comparative study of Northwest Pennsylvania Business firm's needs. Robert Morris University.
- TDRI. (1992). Data taken from the study on "The Role of Information Technology in the Information Society in the Year 2010." *Thailand Development Research Institute, Bangkok.*
- The Fifth Tiger (1994): A Study of Thai Development Policy. Helsinki: *United Nations University Press.*
- Thomas, V. & Kleiner, B. H. (1995).New developments in computer software. *Industrial Management & Data Systems*, 95(6): 22-26.
- Vaassen, E. H. J. (2002). Accounting information system: *A managerial Approach.* England: John Wiley & Sons Ltd.
- Veeken, Henk J. & Wouters, Marc J. F., (2002) "Using accounting information systems by operations managers in a project company", *Management Accounting Research*, Vol. 13, 345-370.
- Vongpanitlerd, S., Siamwalla, A. & Sripaipan, C. Chatri (1992). Public Services in Thailand: *The role of Information Technology*, Vol. 7 No. 4 December, pp. 23-24.
- Weill, P. (1992). The relationship between investment in information technology and firm performance: A study of the valve manufacturing sector. *Information Systems Research.*
- Weill, P., & Olson, M. H. (1989).An assessment of the contingency theory of management information systems. *Journal of Management Information Systems*, 6(1), 59-85.

- Wilkinson, J. W. (1993). *Accounting Information Systems: Essential Concepts and Applications. Second Edition*. New York: John Wiley & Sons Inc.
- Wilkinson, J. W., Cerullo, M. J., Raval, V. and Wong-On-Wing, B. (2000). *Accounting Information Systems: Essential Concepts and Applications*. New York: John Wiley and Sons.
- Wilkinson, J., (2000). *Accounting Information Systems: Essential Concepts and Applications*, John Wiley & Sons, New York.
- Williams, P. (2000). E-commerce: Now and the future. Paper presented at the international research symposium on accounting information systems, Brisbane, Australia.
- Yahya, Z. H., & Alhubaity, K. M. I. (1990). The effectiveness of the information system and accounting sector units Socialist: Case study Unpublished Master's thesis, *Al-Mosul University*, Al-Mosul.
- Yoon, Y. T., Guimaraes, Q., & Neal, (1995). Exploring the factors associated with expert systems success. *MIS Quarterly*, 19(1), 83-106.
- <http://ac427tu.googlepages.com/index.html>
- <http://www.accountantnextdoor.com/users-of-accounting-information-system/Posted>
on Sunday, January 3rd, 2010 at 6.27 am.