

**EXPLORING THE DETERMINANTS OF INFLUENCE OF  
INFORMATION SYSTEM ON ACCOUNTING FIRMS: A CASE OF  
ABR AL REMAL OF LIBYA**

**ALMABROUK H.A. MILAD**

**UNIVERSITI UTARA MALAYSIA**

**2011**

EXPLORING THE DETERMINANTS OF INFLUENCE OF  
INFORMATION SYSTEM ON ACCOUNTING FIRMS: A CASE OF  
ABR AL REMAL OF LIBYA

A thesis submitted to the College of Business  
In partial fulfillment of the requirements for the degree  
Of Master of International Accounting  
Universiti Utara Malaysia

By  
Almabrouk H.A.Milad

## DEDICATION

To God Almighty first, my dad and mum, my sisters and brothers, cousins and those who are important to me.

## PERMISSION TO USE

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

Requests for permission to copy or to make other uses of material in this project paper, in whole or in part should be addressed to:

Dean of College of Business

Universiti Utara Malaysia

06010 Sintok, Kedah Darul Aman

Malaysia

## ABSTRACT

The main focus of this study is to explore the determinants of influence accounting information system on accounting firms in Libya. More specifically, the research intended to investigate the factors influence the effectiveness of accounting information system for firms in Libya. To achieve this objective, data from one of the large Libyan firms (Abr Al Remal Company) was collected by using self-conduct questionnaire. The sample of this study contains the whole staffs in this firm which is 100 employees.

Many types of statistical analysis were conducted to provide more insight on the study variables. One of the most statistical analyses used in this study to provide evidence which variables have significant impact on accounting information system was multiple regression analysis. This analysis provides evidence suggesting that accounting information system is significantly influenced by education, motivation, and training program variable. Moreover, the result revealed that IT knowledge has significant impact of accounting information system. The other two interested variables (company size and IT expertise) were found to be insignificant have little influence on accounting information system.

This study would have an important contribution to the literature of accounting information especially in Libya which has considerably paid more attention to move and adopt new information system technologies. Also, this study can provide police maker in Libyan firms with more insight which factors contribute to make accounting information system more effective.

## ACKNOWLEDGMENTS

I would like to give my deeply thanks to the Almighty God, the provider of health, wisdom and knowledge. Without his mercy and grace, this work would not be achieved.

Many People also should be thanked for their moral and financial support towards the completion of this work. I am deeply indebted to my Mr. Abdulmanaf Bin Bohari for supervising this work, for all his valuable and constructive comments and for his generous help, rigorous and encouragements despite his very busy schedule.

Also, my special thanks go to my mother who supported morally and financially to complete this study. In addition my sincere thanks go to my sisters and brother who strongly facilitated me both morally and financially. I would also like to express my gratitude to my lecturers in the Department of Accounting who provided to me the theoretical knowledge that acted as a guide to the construction of this study.

Finally, I cannot forget to express my gratitude to all my friends whom this work has been their concern and they helped me in one way or another. May God bless you all.

ALMABROUK H. A. MILAD

## TABLE OF CONTENTS

DEDICATION .....	i
PERMISSION TO USE .....	ii
ABSTRACT .....	iii
ACKNOWLEDGMENTS .....	iv
TABLE OF CONTENTS .....	v
LIST OF TABLES .....	viii
LIST OF FIGURES .....	ix
LIST OF ABBREVIATIONS.....	x
CHAPTER ONE .....	1
INTRODUCTION .....	1
1.1 Introduction .....	1
1.2 Problem Statement .....	3
1.3 Research Questions .....	4
1.4 Research Objectives .....	4
1.5 Scopes and Limitation of the Study .....	5
1.6 Significant of the Study.....	5
1.7 Organization of the Study.....	5
1.8 Conclusion.....	6
CHAPTER TWO .....	7
LITERATURE REVIEW.....	7
2.1 Introduction .....	7
2.2 History of Libya .....	7
2.3 Accounting in Libya.....	9
2.4 Hierarchy of Accounting Qualities.....	10
2.5 Information Systems in General.....	12
2.5.1 Objectives of information System.....	12
2.5.2 Inputs.....	13
2.5.3 Output.....	13
2.5.4 Data Storage .....	13

2.5.5	Processors.....	14
2.5.6	Instructions and Procedures .....	14
2.5.7	Users.....	14
2.5.8	Control Measures .....	14
2.6	Accounting Information System (AIS) .....	15
2.6.1	Financial Statement Reporting Quality.....	16
2.6.2	Using Financial Statement Information to Infer Price: The Earnings/ Return Relation.....	18
2.6.3	Using Financial Statement Information to Infer Price: Fundamental Analysis .....	20
2.6.4	Using Financial Statement Information to Infer Price: Valuation Models	22
2.6.5	Using Financial Statement Information for Risk Assessment and Bankruptcy Prediction .....	23
2.6.6	Opportunities for Abnormal Returns .....	24
2.7	Importance of Accounting Information System.....	27
2.8	Related Literatures .....	28
2.9	Theoretical Framework .....	30
2.10	Conclusion.....	31
CHAPTER THREE.....		32
RESEARCH DESIGN AND METHODOLOGY .....		32
3.1	Introduction .....	32
3.2	Research Hypothesis .....	32
3.2.1	Size of the Organization.....	32
3.2.2	Education, Motivation and Training Programs.....	33
3.2.3	Level of IT Knowledge .....	33
3.2.4	IT Expertise.....	34
3.3	Research Design.....	34
3.3.1	Measurement.....	35
3.3.2	Population and Sample.....	35
3.3.3	Data Collection.....	36
3.4	Data Analysis .....	36
3.4.1	Descriptive Analysis .....	36

3.4.2	Reliability and Validity .....	36
3.4.3	Normality Test .....	37
3.4.4	Correlation Analysis.....	37
3.4.5	Regression Analysis.....	37
3.5	Conclusion.....	38
CHAPTER FOUR.....		39
RESEARCH FINDINGS AND DISCUSSION .....		39
4.1	Introduction .....	39
4.2	Descriptive Analysis.....	39
4.3	Reliability Test .....	40
4.3.1	Accounting Information System Reliability Test .....	40
4.3.2	Size of the Company Reliability .....	41
4.3.3	Education and Training Program Reliability Test .....	42
4.3.4	Level of Information Technology Knowledge Reliability Test.....	42
4.3.5	IT Expertise Reliability Test .....	43
4.4	Correlation.....	44
4.5	Multiple Regression Analysis.....	46
4.5.1	Research Objective 2.....	46
4.6	Summary of Hypotheses Tested.....	49
4.7	Conclusion.....	49
CHAPTER FIVE.....		51
CONCLUSION AND SUGGESTIONS FOR FUTURE WORKS .....		51
5.1	Introduction .....	51
5.2	Conclusion.....	51
5.3	Suggestions for Future Works.....	52
REFERENCES.....		53
Appendix .....		58

## LIST OF TABLES

Table 4.1: Percentage of Respondents from Various Departments.....	38
Table 4.4: Education and Training Program Reliability.....	39
Table 4.3: Size of Company Reliability.....	39
Table 4.4: Education and Training Program Reliability.....	40
Table 4.5: Level of Information technology knowledge reliability.....	41
Table 4.6: IT Expertise Reliability Test.....	41
Table 4.7: Correlations of AIS with the Independent Variables.....	42
Table 4.9 Guideline for Pearson Correlation Strength.....	43
Table 4.9 Guideline for Pearson Correlation Strength.....	43
Table 4.10: The Model Summary (D).....	44
Table 4.11: The Coefficients (a).....	45
Table 4.12: ANOVA (d).....	46
Table 4.13: Summary of Hypotheses Tested.....	47

## LIST OF FIGURES

Fig 2.1: Hierarchy of Accounting Qualities .....	11
Fig 2.2: Procurement of material with the use of AIS manual.....	25
Fig 2.3 Procurement of material with the use of computerize AIS.....	26
Fig 2.4: Theoretical framework.....	30

## LIST OF ABBREVIATIONS

AIS:	Accounting Information system
IS:	Information system
IFRS:	International Financial Reporting Standard
TUT:	Third Universal Theory
UK:	United Kingdom
USA:	United States of America
MIS:	Management Information System
IFC:	International Finance Corporation
IFS:	International Financial Statistics
EVA:	Economic Value Added
ICT:	Information Communication Technology
ROA:	Return on Asset
IT:	Information Technology
GAAP:	General Acceptance Accounting Principles

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

American Accounting Association defined Accounting as the process of identifying, measuring and communicating economic information to permit informed judgments and decisions by users of the information. Similarly, this definition further suggests that accounting is about providing 'information' to others. Accounting information is 'economic information' which relates to the financial or economic activities of the business or organization. Accounting information needs to be 'identified and measured'. This is done by way of a 'set of accounts', based on a system of accounting known as 'double-entry book-keeping'. The accounting system identifies and records 'accounting transactions' (Online accounting, 2010).

However, from the functional perspective, accounting is viewed not as end in itself but rather as a commodity or language that is useful in decision making. This implies that existence of accounting is dependent on its usefulness to society and in a narrower context with the usefulness to users of accounting information.

Moreover, the quantum leap and advancements witnessed in recent times in the field of Information and Communication Technology (ICT) have transformed virtually every facet of human activities and have generated tremendous wealth and economic prosperity in many countries around the world. ICT is now the driving-force of all successful and progressive nations; hence all countries are striving towards establishing

The contents of  
the thesis is for  
internal user  
only

## REFERENCES

- Abernethy, M. Lillis, P. Brownell & P. Carter. (2001). Product diversity and costing system design choice: field study evidence. *Management Accounting Research*, Vol.12, pp.261-279.
- Anderson, S. W & Lanen, W.N. (1999). Economic transition, strategy and the evolution of management accounting practices: the case of India. *Accounting, Organizations and Society*, Vol.24, pp.379-412.
- Baines, A. & K. Langfield-Smith. (2003). Antecedents to management accounting change: a structural equation approach. *Accounting, Organizations and Society*, Vol.28, pp.675-698
- Bakar, M. & Russell, A. (2003). The development of Accounting Education and Practice in Libya. *Research in Accounting in Emerging Economies*. R. S. O. Wallace, J. M. Samuels, R. J. Briston and S. M. Saudagaran. Oxford, Elsevier Science 5: 197-236.
- Caldeira, M. & Ward, J. (2002). Understanding the Successful Adoption and Use of IS/IT in SMEs: An Explanation from Portuguese Manufacturing Industries. *Information Systems Journal*, 12(2), 121-152.
- Caramis, C. V. (2002). The Interplay between Professional Groups, the State and Supranational Agents: Pax Americana in the Age of 'Globalization. *Accounting, Organizations & Society*, (27), pp. 379 - 408.
- Chong, V. & Chong, K. (1997). Strategic choices, environmental uncertainty and SBU performance: a note on the intervening role of management accounting systems. *Accounting and Business Research*, Vol.27, pp.268-276.
- Danowitz, A., Nassef, Y. & Goodman, S. (1995). Cyberspace Across the Sahara: Computing in North Africa. *Communications of the ACM*, 38(12), 23-28.
- Dictionary. Com (2010). Accounting Firm. Retrieved November 7, 2010 from <http://dictionary.reference.com/browse/accounting+firm>
- Grabski, S & Marsh. R. (2000). Integrating Accounting and Manufacturing Information Systems: An ABC and REA-Based Approach, *Journal of Information Systems*. pp.61-81

- Greenstein, M. (2003). Underlying principles of the electronization of business: a research agenda. *International Journal of Accounting Information Systems* 4(1): 1-25.
- Haldma, T. & Laats, K. (2002). Contingencies influencing the management accounting practices of Estonian manufacturing companies. *Management Accounting Research*, Vol.13, pp.379-400.
- Hendriksen & Van Breda. (1991). *Accounting Theory Textbook, Fifth Edition*. Homewood, Ill. Irwin pp 132.
- Hoque, Z. & Hopper, T. (1997). Political and industrial relations turbulence, competition and budgeting in the nationalized jute mills of Bangladesh. *Accounting and Business research*, Vol.27, pp.125-143.
- Jermakovicz K, Kinsey, P., & Wulf, I. (2007). The Value Relevance of Accounting Income Reported by DAX-30, German Companies. *J. Int. Financ. Manage. Account.* 18(3): 611-641
- Jones, C. (1985). An empirical study of the evidence for contingency theories of management accounting systems in conditions of rapid change. *Accounting, Organizations and Society*, Vol.10, pp.303-328.
- Kilani, A. (1998). The Current and the Future of Financial Performance Reports in Libya. *Journal of Economic Research, National Academy of Scientific Research: The economic Research Centre, Benghazi* 9(1/2): 203-231.
- Laudon, K. & Laudon, J. (2002). *Management information Systems (1st edition)*. New Jersey, USA: Prentice Hall
- Libby, T. & Waterhouse, J. (1996). Predicting change in management accounting systems. *Journal of Management Accounting Research*, Vol.8, pp.37-150.
- McMahon, P. (2001). Business growth and performance and financial reporting practices of Australian manufacturing SMEs. *Journal of Small Business Management*, vol. 39, no. 2, pp. 152-164.
- Meyer, J. W. (2000). Globalization: sources and effects on national states and societies. *International Sociology*, (15), No. 2, pp. 233 – 248.

- Nash, J. (1995). *Accounting Information Systems, Second Edition*, PWSKent Publishing Company, 1989.
- Online Accounting. (2010). Introduction to Accounting. Retrieved November 7, 2010 from [http://tutor2u.net/business/accounts/intro\\_accounting.htm](http://tutor2u.net/business/accounts/intro_accounting.htm)
- Pei, B. K. W, Steinbart, P. J. & Reneau, J. H. (1994). The effects of judgment strategy and prompting on using rule-based expert systems for knowledge transfer. *Journal of Information Systems* 8(1): 21-42.
- Penman, S. H. (1996). The articulation of price-earnings ratios and market-to-book ratios and the evaluation of growth. *Journal of Accounting Research* 34(2): 235-259.
- Penman, S. H. (1998). Combining earnings and book value in equity valuation. *Contemporary Accounting Research* 15(3): 291-324.
- Phillips, J., Pincus, M. & Rego, S. (2003). Earnings management: New evidence based on deferred tax expense. *The Accounting Review* 78(2): 491-521.
- Pincus, K. V. (1989). The efficacy of a red flags questionnaire for assessing the probability of fraud. *Accounting, Organizations and Society* 14(1/2): 153-164.
- Pinsker, R., & Li, S. (2008). Costs and Benefits of XBRL Adoption: Early Evidence. *Communications of the ACM* 51(3):47-50.
- Piotroski, J. (2000). Value investing: The use of historical financial statement information to separate winners from losers. *Journal of Accounting Research* (supplement): 15-41.
- Reid, G. & Smith, J. (2000) The impact of contingencies on management accounting system development. *Management Accounting Research*, Vol.11, pp.427-450.
- Romney et al. (2004). *Accounting Information System. Seventh Edition*, Addison-Wesley, 1997.
- Selway, M. (2000). Over the hump. *Accountancy textbook on information system and its usefulness* 125(1280): 68-69.

- Suddaby, R., Cooper, D. & Greenwood, R. (2007). Transnational Regulation of Professional Services: Governance Dynamics of Field Level Organizational Change. *Accounting, Organizations & Society*, (32), pp. 333 – 362
- Szychta, A. (2002) The scope of application of management accounting methods in Polish enterprises. *Management Accounting Research*, Vol.13, pp.401-418.
- Vasarhelyi, M. A. (2002). Concepts in Continuous Auditing. In *Research Accounting as an Information Systems Discipline*, edited by S. G. Sutton and V. Arnold. Saratoga: American Accounting Association.
- Vera-Munoz, S. C., Ho, J. L., & Chow, C. W. (2006). Enhancing Knowledge Sharing in Public Accounting Firms. *Accounting Horizons* 20(2): 133-155.
- Watts, R. & Zimmerman, J. (1986). *Positive Accounting Theory*. Englewood Cliffs, NJ, Prentice Hall.
- Weiner, J. M. (2007). Closing the other tax gap: The book-tax income gap. *Tax Notes* (May 28).
- Whisenant, S. & Fairfield, P. (2001). Using fundamental analysis to assess earnings quality: Evidence from the Center for Financial Research and Analysis. *Journal of Accounting, Auditing, and Finance* 2001: 273-295.
- White, G. I., Sondhi, A. C., & Fried, H. D. (2003). *The Analysis and Use of Financial Statements*, Wiley, New York.
- Wijewardena, H. & De Zoysa, A. (1999) A comparative analysis of management accounting practices in Australia and Japan: an empirical investigation. *The International Journal of Accounting*, Vol.34, pp.49-70.
- Wilks, T.J. & Zimbelman, M. F. (2004). Decomposition of fraud-risk assessments and auditor's sensitivity to fraud cues. *Contemporary Accounting Research* 21 (Fall): 719-745.
- Winters, A.J. (1975). Bankers perceptions of unaudited financial statements. *The CPA Journal*, August.
- Wolfson, M. (1985). Tax, incentive, and risk-sharing issues in the allocation of property rights: The generalized lease-or-buy problem. *Journal of Business* 58(2): 159-171.

World Bank Market. (2010). Libya at a glance. Retrieved February 10, 2010, from <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/LIBYAEXTN/O,,menuPK:410809~pagePK:141132~piPK:141109~theSitePK:410780,00.html>

Zhang, X.J. (2000). Conservative accounting and equity valuation. *Journal of Accounting and Economics* 29(1): 125-149.