RESPONSIBILITY ACCOUNTING, TARGET COSTING AND BUSINESS PERFORMANCE: THE ROLE OF RISK MANAGEMENT AS MEDIATOR

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by

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LIST OF ABBREVIATIONS

ABC	Activity Based Costing
ABJ	Association of Banks in Jordan
AICPA	American Institute of Certified Public Accountants
APM	Association for Project Management
ASE	Amman Stock Exchange
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
CBJ	Central Bank of Jordan
CFOs	Financial Managers
CIMA	Chartered Institute of Management Accountants
COSO	Committee of Sponsoring Organizations
ERP	Enterprise Resource Planning
EU	European Union
FSA	Financial Services Authority's
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
ICAEW	Institute of Chartered Accountants in England and Wales
ICT	Information and Communication Technologies
IFAC	International Federation of Accountants
IIA	Institute of Internal Auditors
ISO	International Organization for Standardization
JD	Jordanian Dinars
JIT	Just-In-Time
JSC	Jordan Securities Commission

MAC	Management Accounting and Control
NBCA	New Basel Capital Accord
ROA	Return On Assets
SCA	Strategic Cost Analysis
SDC	Securities Depository Centre
TQM	Total Quality Management

TANGGUNGJAWAB PERAKAUNAN, KOS SASARAN DAN PRESTASI PERNIAGAAN: PERANAN PENGURUSAN RISIKO SEBAGAI PENGANTARA

ABSTRAK

Krisis yang menjejaskan persekitaran perniagaan di Jordan mencetuskan peningkatan tumpuan terhadap isu risiko dan prestasi di kalangan institusi kewangannya. Di Jordan, pelbagai arahan dan pekeliling telah dikeluarkan oleh Bank Negara Jordan sebagai sebahagian daripada inisiatif kerajaan untuk memastikan kawalan dan prestasi yang lebih baik, menyebabkan institusi kewangan perlu memberi perhatian yang lebih serius terhadap amalan perakaunan pengurusan dan pengurusan risiko mereka. Kajian ini memberi tumpuan kepada dua amalan perakaunan pengurusan yang penting iaitu perakaunan tanggungjawab dan kos sasaran. Kajian ini mempunyai dua objektif, pertama, untuk mengkaji hubungan langsung antara amalan perakaunan pengurusan (perakaunan tanggungjawab dan kos sasaran) dan prestasi perniagaan (prestasi kewangan dan prestasi bukan kewangan). Kedua, untuk mengkaji hubungan tidak langsung antara amalan perakaunan pengurusan (perakaunan tanggungjawab dan sasaran kos) dan prestasi perniagaan (prestasi kewangan dan prestasi bukan kewangan), dengan amalan pengurusan risiko sebagai pemboleh ubah perantaraan. Berdasarkan teori kontingensi, kajian ini bertujuan untuk mengenal pasti bagaimana amalan perakaunan pengurusan boleh meningkatkan prestasi perniagaan melalui amalan pengurusan risiko sebagai faktor pemadanan. Responden kaji selidik kajian ini terdiri daripada 102 Ketua Pegawai Kewangan

(CFO) dan Pengurus Kewangan daripada institusi kewangan di Jordan dan model kajian dinilai dengan menggunakan Pakej Statistik untuk Sains Sosial (SPSS) versi 23.0 bersama *Smart Partial Least Squares* (PLS) versi 3.0. Hasil kajian ini menunjukkan bahawa dua komponen perakaunan tanggungjawab iaitu amalan penyediaan bajet pusat tanggungjawab, dan pengagihan maklumat kos dan hasil sebenar mempunyai kesan positif yang signifikan ke atas prestasi kewangan institusi kewangan di Jordan, manakala empat komponen perakaunan tanggungjawab iaitu pengenalpastian pusat tanggungjawab, kuasa pengurus pusat tanggungjawab, penilaian prestasi dan sistem insentif didapati mempunyai kesan tidak langsung yang signifikan ke atas prestasi kewangan melalui amalan pengurusan risiko sebagai pemboleh ubah perantaraan. Selain itu, hanya satu komponen perakaunan tanggungjawab iaitu pengenalpastian pusat tanggungjawab yang didapati mempunyai kesan positif yang signifikan kepada prestasi bukan kewangan bagi institusi kewangan di Jordan, manakala tiga komponen perakaunan tanggungjawab iaitu pengenalpastian pusat tanggungjawab, kuasa pengurus pusat tanggungjawab dan sistem insentif didapati mempunyai kesan tidak langsung yang signifikan terhadap prestasi bukan kewangan melalui amalan pengurusan risiko sebagai pemboleh ubah perantaraan. Bagi amalan kos sasaran, hubungan langsung yang signifikan wujud antara semangat kerja berpasukan dan prestasi bukan kewangan. Hubungan tidak langsung yang signifikan didapati wujud di antara tiga komponen amalan kos sasaran iaitu analisis keperluan pelanggan, analisis pasaran, dan semangat kerja berpasukan, dengan kedua-dua prestasi kewangan dan bukan kewangan bagi institusi kewangan di Jordan, melalui amalan pengurusan risiko sebagai

pemboleh ubah perantaraan. Kajian ini memperkaya kesusasteraan dalam bidang perakaunan tanggungjawab dan pengurusan risiko dengan mengenalpasti komponen amalan perakaunan tanggungjawab dan kos sasaran yang menyumbang kepada amalan pengurusan risiko dan prestasi perniagaan.

RESPONSIBILITY ACCOUNTING, TARGET COSTING AND BUSINESS PERFORMANCE: THE ROLE OF RISK MANAGEMENT AS MEDIATOR

ABSTRACT

The crises that affected Jordanian business environment were a wake-up call for its financial institutions sparking concern on the issues of risk and performance. In Jordan, various instructions and circulars have been issued by the Central Bank of Jordan as part of the government's initiative to ensure good control and performance, causing the financial institutions to give more serious attention towards their management accounting and risk management practices. The present study focuses on two prominent management accounting practices i.e. responsibility accounting and target costing. There are two main objectives of this study, firstly, to examine the direct relationship between responsibility accounting and target costing and business performance (financial performance and non-financial performance). Secondly, to examine the indirect relationship between responsibility accounting and target costing and business performance (financial performance and non-financial performance), incorporating risk management practice as a mediator. Based on contingency theory, the present study aims to identify how management accounting practices can enhance business performance through risk management practice as the 'fit' factor. The survey respondents of this study are 102 Chief Financial Officers (CFOs) or Financial Managers from financial institutions in Jordan and the model of the study was evaluated using Statistical Package for the Social Sciences (SPSS)

with smart Partial Least Squares (PLS). The findings of this study indicated that two components of responsibility accounting practice i.e. preparation of responsibility centers' budget, and distribution of actual costs and revenues information have significant positive impact on the financial performance of the financial institutions in Jordan, while the other four components of responsibility accounting practice i.e. identification of responsibility centers, authorization of responsibility centers' managers, performance evaluation and the incentive system were found to have a significant indirect effect on financial performance via risk management practice as a mediator. Furthermore, only one component of responsibility accounting practice i.e. identification of responsibility centers has significant positive impact on the non-financial performance of the financial institutions in Jordan, while three components of responsibility accounting practice i.e. identification of responsibility centers, authorization of responsibility centers' managers and the incentive system were found to have a significant indirect effect on non-financial performance via risk management practice as a mediator. As for target costing practice, the significant direct relationship is observed between teamwork spirit and non-financial performance. Significant indirect relationships are observed between three components of target costing practices i.e. analysis of the needs of clients, analysis of the or market, and teamwork spirit, with both financial and non-financial performance of the financial institutions in Jordan by means of risk management practice as a mediator. The present study contributes by extending the literature in the area of management accounting and risk management as it identifies the various

responsibility accounting and target costing practices that contribute to risk management practice and business performance.

CHAPTER 1

INTRODUCTION

1.0 Introduction

The Jordanian financial sector is an industry exposed to various external factors such as political turmoil in the middle-east region, energy crises due to the instability of oil price, and rapid progress in information and communication technology. The global economic crises in year 2008 followed by the abovementioned developments have brought changes to Jordanian consumers' preferences and needs while at the same time increased challenges within its financial sector. In year 2012, there was a slight decline in the economic activity growth of the Jordanian economy, together with the increase of its budget inability and the exacerbating of its debt balance (Central Bank of Jordan, 2013).

The International Monetary Fund (IMF) noted and calculated that the global economic crisis in the year 2008 produced $3.4 trillion in losses for financial institutions around the world by 2010, and World Gross Domestic Product (GDP) in 2007 was approximately $70 trillion, thereby the immediate decline in the economic output of the planet was about 5 percent (Dattels & Kodres, 2009). In Jordan, the effect of the financial crises in the year 2008 on Jordanian financial institutions is evidenced in table 1.1. The table shows index extraction and change in the index during the period from 1/1/2008 to 31/12/2009 for Jordanian financial institutions listed in Amman Stock Exchange - ASE, where "*indicators show the prices of stocks and determine the general direction of prices,*

and are used to measure changes in stock prices during a certain period compared with the other" (Alnajjar, Noor, Nazem, & Issa, 2010, p. 2).

Table 1.1

Index Extraction and Change in the Index for the Jordanian Financial Institutions

Real estate sector		Diversified Financial Services		Insurance sector		Banking sector		Month
CHG. (%)	**Index**	**CHG. (%)**	**Index**	**CHG. (%)**	**Index**	**CHG. (%)**	**Index**	
2.47	8017.30	0.71	9083.80	0.45	3670.00	3.85	5319.50	**Jan 2008**
(1.64)	7885.71	(4.65)	8661.75	(0.71)	3643.98	1.42	5395.07	**Feb 2008**
1.84	8002.10	(2.44)	8450.44	(1.68)	3582.76	(7.41)	4995.50	**Mar 2008**
3.50	8282.21	0.28	8474.40	0.85	3613.09	0.66	5028.45	**Apr 2008**
3.41	8564.39	3.84	8800.00	4.36	3770.72	3.06	5182.13	**May 2008**
(2.87)	8318.78	11.64	9824.16	10.88	4179.03	7.65	5578.42	**Jun 2008**
(2.90)	8077.62	(3.84)	9447.20	(4.00)	4011.88	3.04	5748.28	**Jul 2008**
(1.13)	7985.63	(0.70)	9380.92	(0.27)	4001.04	(3.21)	5563.64	**Aug 2008**
12.36	6999.80	6.64	8757.60	1.79	3929.60	4.97	5286.90	**Sep 2008**
(21.71)	5480.44	(24.99)	6568.83	(11.92)	3461.10	(9.51)	4784.21	**Oct 2008**
(19.34)	4420.36	(22.03)	5121.94	(3.87)	3327.32	(11.85)	4217.14	**Nov 2008**
(12.25)	3879.00	(6.36)	4796.19	(2.89)	3231.07	(0.50)	4196.26	**Dec 2008**
3.55	4016.55	(3.89)	4609.57	(4.32)	3009.51	(3.15)	4063.90	**Jan 2009**
6.06	4259.83	1.33	4670.77	0.18	3096.90	(5.22)	3851.56	**Feb 2009**
6.84	4551.38	676	4986.53	0.95	3126.32	(3.62)	3712.22	**Mar 2009**
(0.92)	4504.37	17.55	5861.48	2.81	3214.10	1..30	3760.60	**Apr 2009**
(0.77)	4471.57	(11.51)	5186.76	0.72	3237.12	6.07	3988.68	**May 2009**
(11.55)	3957.89	(11.90)	4569.75	(4.94)	3077.16	(2.73)	3879.78	**Jun 2009**
(9.03)	3600.66	(6.68)	4264.72	(6.72)	2870.38	(4.61)	3700.89	**Jul 2009**
(9.055)	3256.95	(6.48)	3988.42	(4.00)	2755.47	0.03	3702.02	**Aug 2009**
23.68	4028.25	20.92	4822.94	6.64	2938.52	2.29	3786.72	**Sep 2009**
(12.93)	3507.55	(8.36)	4419.97	(2.62)	2861.67	0.00	3786.91	**Oct 2009**
(4.84)	3337.81	(8.20)	4057.44	(0.03)	2860.82	(2.59)	3688.65	**Nov 2009**
(6.20)	3131.03	(10.82)	3618.35	(0.80)	2837.97	(1.14)	3646.76	**Dec 2009**

Source: Amman Stock Exchange (2009)

It is clear from the table that there is a negative curve for the index during the period from 1/1/2008 to 31/12/2009 for Jordanian financial institutions listed in ASE (Alnajjar et al., 2010). The crises have led to changes in the environment, and the economic volatility of modern business environment has resulted in many changes in terms of market competition and client needs, thus leading to the need for improvement of financial services. In Jordan, significant changes are also observed in terms of the entry of foreign investments and the

multiplicity of services and products and the emergence of new products and services competition (Al-Smadi & Al-Wabel, 2011; Al-Nimer et al., 2012).

The changes in business environment and the economic volatility of modern business environment lead to new issues or difficulties in the aspects of planning, implementation, control, as well as the increase need for risk management. In other words decision making is now more challenging, thus needing the usage of modern management accounting which not only provide financial information and take into account operational goals where modern management accounting provides financial and non-financial information and this information contributes to all business functions including control, planning, coordination, organizing, guidance and decision-making (Turney, 2006; Delaney & Guilding, 2010). For example, Turney (2006) discussed that Activity-Based Costing (ABC) approach as a foundation for performance management, and Delaney and Guilding (2010) noted that management accounting, specifically modern approaches in the light of management accounting contributes at better decision-making process via providing relevance information both financial and non-financial information to take good decisions. Also, modern management accounting provides more accurate measuring of the cost of products and services, and it aims to achieve operational and strategic goals in institutions and finally improve the institutions' performance (Cools & Slagmulder, 2009). Thus, according to the relevance of the findings from previous articles, modern management accounting approaches are based on helping managers in achieve the administrative objectives and improve the institutions' performance by providing relevant information.

The new approaches in management accounting, such as the responsibility accounting (Christensen, Feltham, & Sabac, 2003; Cools & Slagmulder, 2009) and target costing (Knight & Collier, 2009; Zengin & Ada, 2010; Woods, Taylor, & Fang, 2012) bridge the gaps between operational and strategic performance through linking operational objectives and strategic aims (Rowe, Birnberg, & Shields, 2008; Birnberg, 2009; Strumickas & Valanciene, 2009). Responsibility accounting is interested in drawing the internal organizational charts and ensuring operational continuity in institutions via the distribution of powers and responsibilities, lines of communication and thus the establishment of internal policies and procedures designed to achieve the desired objectives (Rowe et al., 2008). The application of responsibility accounting in institutions becomes part of the strategies to achieve their goals. This is because the application of responsibility accounting contributes to the preparation and design of the appropriate organizational structure in institutions (Bloomfield & Coombs, 1992; Alawamleh & Kloub, 2013). The advantages of responsibility accounting in institutions can be summarized through its activities and roles in standard costs, budgets, decentralization, control system, and performance evaluation that are important to achieve institutions' goals. Parola, Satta, Persico, and Bella (2013) noted that responsibility accounting plays a vital role in controlling the elements of costs, and Garrison, Noreen and Brewer (2011) suggested that responsibility accounting recognizes how the activities are accomplished efficiently and effectively through ensuring optimal exploitation of resources (Rowe et al., 2008). Hansen, Mowen and Guan (2009) discussed that responsibility accounting contributes at performance evaluation through achieving compatibility between the institution's objectives, and its ability to achieve the objectives and achieve the planned returns.

Target costing aims to achieve the desired objectives through the study and analysis of both external and internal conditions and thus the establishment of operational picture for the provision of services and products with taking into account internal goals and environmental needs (Knight & Collier, 2009). Target costing attempts to identify and recognize the external and internal factors that affect the institutions' performance by taking into account the market and environmental conditions with the institutions' goals. Also, target costing is seeking to study and analysis these conditions and factors, and to develop the institutions' strategies as well as to achieve targeted profits with the lowest risk (Al Azzam, 2013). Besides, Zengin and Ada (2010) discussed that target costing as a cost management approach, and it works on ensuring a good product or service design with the minimum cost in order to achieve the targeted performance.

Furthermore, the economic, social and political developments had spurred the need among financial institutions in Jordan to emphasize on better risk management to improve business performance. In order to remain competitive in the financial sector, it is necessary to exploit all opportunities that may arise by designing good strategies for risk management that play a vital role in the improvement of business performance (Abdul Rasid & Abdul Rahman, 2009; Abdul Rasid, Abdul Rahman, & Ismail, 2011). Accordingly, appropriate information needs to be used in the planning, control and decision-making – in an integrated manner – to support risk management and thus improve business performance (Kaplan & Norton, 1992; Kaplan & Norton, 1996; Chenhall, 2003; Skærbæk & Tryggestad, 2010).

This study will shed light on the importance of modern management accounting practices, specifically responsibility accounting and target costing in Jordanian financial sector, by looking at their relationship with business performance. Additionally, this study will explore the role of risk management practice as a mediator.

1.1 Background of the Study

Jordan has been the subject of considerable economic progress since the 1990s. The execution of privatization programs, the liberalization of capital markets and reforms of corporate governance structures are some of the major efforts undertaken by the Jordanian government to draw in investors. Thus, three key institutions, i.e. Amman Stock Exchange (ASE), Securities Depository Centre (SDC) and Jordan Securities Commission (JSC) have been established to give support to the Jordanian's regulatory environment by increasing transparency, disclosure and accountability, and ultimately improve the quality of corporate governance and business performance (Al-Jarrah, Qasrawi, Obeidat, & Sulyman, 2012).

The financial sector is one of the most important economic sectors (El-Hawary, Grais, & Iqbal, 2007; Abdul Rasid et al., 2011). This is due to its vital role in the overall contribution to the Gross Domestic Product (GDP). For example, GDP statistic shows the contribution of the banking sector in the Jordanian economy, reaching total facilities at the end of the first quarter of 2013 with about 18,135.2 million Jordanian Dinars (JD), and with total bank deposits in Jordanian banks at the end of the first quarter of 2013 about 25, 858.6 million JD. In addition, total assets for Jordanian banks stood at the end of the fourth quarter of 2013 in about 42, 802 million JD, and table 1.2 shows the total assets of licensed

Jordanian banks from Central Bank of Jordan for the period of 2000 until the end of the year 2015. Also, in terms of their financial strength, the capital adequacy ratio and financial ratios have shown that the Jordanian banking domain has achieved a higher level than the requirement stipulated by the Central Bank of Jordan (CBJ) and Basel Committee (II and III) (Al-fawwaz & Alragaibat, 2015; Central Bank of Jordan, 2015).

Table 1.2

Total Assets for the Licensed Jordanian Banks

Year	2000	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Assets (million JD)	12.913	26.815	29.796	31.956	34.973	37.686	39.275	42.802	44.868	47.133

Source: Adopted from Central Bank of Jordan (2015)

The financial sector is associated with various economic sectors as it provides numerous financial sources to the economic sectors, thereby making the financial sector the financial umbrella and financial protector for other economic sectors. The number of operating institutions which are listed in the Amman Stock Exchange in Jordan under the financial sector at the end of the year 2015 is 122 institutions. These institutions were listed within the Jordanian financial sector where they can be classified by the nature of its activity (Business) to four sub-sectors. These are Banks, Insurance, Diversified Financial Services and the Real Estate sector where they represent 13 percent, 23 percent, 31 percent and 33 percent respectively of the number of operating institutions in Jordanian financial sector (ASE, 2015).

With the increasing economic changes and the impact of many global and local crises (such as influx of displaced persons from their countries to Jordan and the increase of

inflation level), Jordanian financial institutions management has been in a serious search for possible solutions to mitigate the risks on their operating performance and to assuage any future risk, and thus improve their performance both financial and non-financial. As it is, finding possible solutions has been the agenda for not only Jordanian financial institutions, but also for the financial institutions globally (Alnajjar et al., 2010; Abdul Rasid et al., 2011).

1.2 Research Problem

As discussed previously, the Jordanian economy is impacted by various social and economic crises including the rise of oil price and the influx of displaced persons from Syria and Iraq due to surrounding wars, which had created a volatile and uncertain geopolitical environment in the country (Al-Shubiri, 2011). These external factors, to a certain extent, had provided significant challenges toward the ongoing business environment in Jordan, including its financial sector, as they negatively affected the country's annual inflation rate and its GDP growth (as depicted in table 1.3 and table 1.4).

Table 1.3

GDP at Constant Market Prices in Jordan

Year	2000	2003	2005	2008	2010	2011	2012	2013	2014	2015
GDP at Constant Market Prices %	7.00	12.00	20.00	8.00	11.00	9.00	7.00	2.8	3.1	2.4

Source: Adopted from Central Bank of Jordan (2015)

Table 1.4

Annual Inflation Rate in Jordan

Year	2000	2003	2005	2008	2010	2011	2012	2013	2014	2015
Rate %	1.77	2.34	3.68	13.97	4.84	4.17	4.52	4.82	2.9	-0.9

Source: Adopted from Central Bank of Jordan (2015)

A recent assessment (i.e. Jordan's Banking Industry Country Risk Assessment - BICRA) by Standard and Poor's (2014) on the Jordanian banking industry in terms of country's economic risk showed an increase of the level of economic risk from a score six for the years 2012 and 2011 to a score seven for the years 2013 and 2014 (i.e. Scale (1) least risky and (10) most risky). Both the external factors (as mentioned previously) as well as the high level of competition in the industry itself due to rapid information technology development and large number of financial institutions in the country, are believed to contribute to the shift from intermediate risk level to high risk level.

A preliminary study had also been conducted with several CFOs or financial managers in the financial institutions in Jordan in order to get a clearer picture on the risk issue in relation to the country's financial sector. Information gathered from the four interviewees (one interviewee was selected from each of the four sub-sectors i.e. Bank, Insurance, Diversified Financial Services and the Real Estate, and all interviewees have been serving the financial sector for the last ten years) revealed that the interviewees perceived a continuous increase of risk level that would affect the activities and operations of their organizations. They relate this condition due to the various external and internal factors such as economic (e.g. rise in oil prices, increase government expenditures, and increase inflation), political (e.g. the surrounding political wars) and social (e.g. change the

clients' needs) factors. In response to this situation, the interviewees had highlighted that the way forward in their organizations include focusing its objectives on improving the organizations through adoption of several approaches – managerial, accounting, and control approach - (e.g., modern management accounting approaches) in their attempt to reduce and manage the risk level.

In order to reduce the influence of risk, the financial institutions should be able to manage and provide coverage against all types of risks (Lestari, 2014). Risk management is one of the main pillars in the institutions' management that seek to reduce and spearhead resistance towards risk (McNeil, Frey, & Embrechts, 2005). Many studies indicate that poor risk management has led to global financial crisis (2008) and the collapse of many commercial banks in the world (Poole, 2008). Thereby, the lack of risk management in institutions is one of the main reasons for financial crises in August (2008), and this corresponds to Poole (2008). In other words, risk management has a key role in the achievement of institutions' goals that include achieving the maximum profit with low risk, and thus obtaining better business performance (Power. 2008; Vasile, Croitoru, & Mitran, 2012). Risk management needs more information, both financial and non-financial, about external and internal conditions, and this information can be provided by management accounting. Thus, risk management and management accounting complement each other for better performance (Abdul Rasid & Abdul Rahman, 2009; Abdul Rasid et al., 2011; Abdul Rasid, Isa, & Ismail, 2014).

According to management accounting systems characteristics that have been discussed via prior literature, there are four main characteristics for sophisticated

management accounting systems, namely broad in scope, provided in a timely, integrated and aggregated manner (Abdul Rasid et al., 2014). Prior studies have also found that these characteristics support the implementation of risk management (Abdul Rasid et al., 2014). The broad in scope, timely, integrated and aggregated information (both financial and non-financial) provided by responsibility accounting and target costing help managers to make effective and good decisions. Thereby, information that provided by these approaches is important (Rowe et al., 2008; Woods et al., 2012).

Prior studies have discussed the relationship between management accounting (in general) with risk management and business performance (Abdul Rasid & Abdul Rahman, 2009; Abdul Rasid et al., 2011; Abdul Rasid et al., 2014). Considering that prior findings have highlighted the significant but weak relationship between management accounting systems and corporate performance (Agbejule, 2005), the present study took one step further by looking at the role of risk management as a mediating factor that explains the linkage between management accounting practices and business performance.

The present study focuses on two approaches in the light of modern management accounting, namely responsibility accounting and target costing that take into account the internal and external factors as a comprehensive assessment approach on the relationship with business performance (financial and non-financial). Also, this study focuses on the role of risk management practice giving the mediating effect on the relationship between responsibility accounting and target costing, and business performance. Considering the fact that responsibility accounting and target costing are necessary practice in the analysis of environmental influences on organizations (Lee, 1994; Al Hanini, 2013), their roles are

deemed important in assisting the predictability and avoidance of risk. Both management accounting practices are potential contributors in supporting the growth and development of risk management strategies in financial institutions, and will subsequently improve the institutions' performance. Thus, the present study wishes to enhance the knowledge in the field of modern management accounting, specifically responsibility accounting and target costing, as well as, business performance (financial and non-financial) in Jordanian financial sector, mediated by risk management practice.

1.3 Research Questions

This study seeks to identify the responsibility accounting practice and target costing practice in Jordanian financial institutions, and their relationship with business performance mediated by risk management practice. Thus, the research questions are presented as follows:

1. What is the relationship between responsibility accounting practice and business performance in Jordanian financial institutions?
2. What is the relationship between target costing practice and business performance in Jordanian financial institutions?
3. Does risk management practice play a role in mediating the relationship between responsibility accounting practice in Jordanian financial institutions, and business performance?

4. Does risk management practice play a role in mediating the relationship between target costing practice in Jordanian financial institutions, and business performance?

1.4 Research Objectives

This study aims to provide a better understanding of the knowledge of responsibility accounting and target costing in Jordanian financial institutions, and their relationship with business performance, taking into account risk management practice as the mediator. The objectives of this study can be clarified as follows:

1. To examine the relationship between responsibility accounting practice and business performance in Jordanian financial institutions.
2. To examine the relationship between target costing practice and business performance in Jordanian financial institutions.
3. To examine the role of risk management practice as a mediating factor in the relationship between responsibility accounting practice in Jordanian financial institutions, and business performance.
4. To examine the role of risk management practice as a mediating factor in the relationship between target costing practice in Jordanian financial institutions, and business performance.

1.5 Significance of Study

Management accounting is one of the most important sources of information in the institutions, where it plays a prominent role in providing necessary information for decision-making in a timely manner (Jariri & Zegordi, 2008; Wu, Huang, & Brown, 2013). Modern management accounting works on keeping pace with the development and changes in business fields and solving problems encountered by the institutions. Thus, the information provided by modern management accounting information has its undeniable importance, because proper information leads to proper decisions (Goma'a, Muharram, & Khatib, 2000).

Today, risk management is one of the most important strategies in institutions, where the institutions' management focus on being in pursuit of possible solutions in order to reduce effects left by the environmental development on institutions' performance (Akindele, 2012; Keller & Bayraksan, 2012). It is likely that the use of modern management accounting approaches play a prominent role in risk management, and thus better business performance. This study highlights the relationship between modern management accounting practices (responsibility accounting and target costing) and business performance, simultaneously taking into account risk management practice as the mediator, as an empirical study in Jordanian financial sector. This is the first study that concentrates on the relationship between modern management accounting, risk management and business performance in the Jordanian environment as an emerging economic environment.

1.6 Scope of Study

This study seeks to understand the extent of the modern management accounting practices, specifically responsibility accounting and target costing as important approaches in Jordanian environment. More importantly, their relationship with business performance, taking into account risk management practice as the mediator, as an empirical study in Jordanian financial sector.

The study population consists of all institutions listed in Amman Stock Exchange under the financial sector in Jordan, where Jordanian financial sector includes 122 institutions at the end of the year 2015, distributed to four sub-sectors. These are: Banks where the number of operating banks and listed in Amman Stock Exchange at the end of year 2015 is sixteen banks, Insurance and it includes twenty-eight institutions until the end of the year 2015, Diversified Financial Services and it includes also thirty-eight institutions until the end of the year 2015, as also the fourth sub-sector is the Real Estate sector where includes forty institutions until the end of the year 2015 (ASE, 2015).

1.7 Definition of Variables

This study defines independent and dependent in addition to mediator variables, as follows:

1.7.1 Modern Management Accounting

Modern management accounting is management accounting that provides financial and non-financial information, that also takes into account the operational and strategic' goals in institutions. In this study, the term modern management accounting specifically refers to identifying, interpreting, measuring, analyzing and communicating information (financial or non-financial information) to achieve the institutions' goals (the Jordanian financial institutions' goals), and that information aims to facilitate the managers' work to perform decision-making (Brandau & Hoffjan, 2010). The modern management accounting approaches that will be used by the researcher in this study as stated below:

1.7.1(a) Responsibility Accounting

The responsibility accounting can be defined from various perspectives. Responsibility accounting is a management accounting system, which the system collects and reports costs and revenues information, based on areas of responsibility. The assumption of responsibility accounting is that managers who are working in institutions should be accountable and responsible for their owns activities, the activities of their subordinates, and any activities performed in their responsibility centers (Mojgan, 2012). Abu Nassar (2010) defined responsibility accounting that it is the periodic report preparation system on operations costs and revenue for each responsibility center within institutions. Responsibility accounting has also been defined using a broader scope where Indjejikian and Nanda (2009) discussed that responsibility accounting is identify the factors / conditions / requirements that control the division of economic unity to the responsibility

centers. Additionally, Dunn (2002) defined that responsibility accounting is the comparison of the actual performance with the planned, and the deviation analysis and performance evaluation for optimal utilization of institutions' resources. Hence, the present study looks at responsibility accounting as the management accounting practice of ensuring managers to be responsible towards their areas of the business.

Consistent with previous studies (Duh, Xiao, & Chow, 2008; Gharayba, Debi, & Abu Nasar, 2011; Jaradat, ALazzam, & AL Shra'ah, 2013; Al Hanini, 2013), the current study refers to responsibility accounting in the aspects of activities and performance. Thus, the term responsibility accounting refers to the identification and distribution of powers and responsibilities within institution's structure (financial institution's structure), and the preparation of budgets for each responsibility center, then distribution of the actual costs and revenues information according to each center and finally evaluation of performance and responsibility based incentive system. Also, responsibility accounting in this study is the preparation of reports about the deviations of the actual performance with planned performance.

1.7.1(b) Target Costing

Hiromoto (1988), Sakurai (1989) and Ansari and Bell (1997) suggested that target costing is cost management system, and this system aims to deduce the overall cost for products and services during their entire life cycle, and it helps institution in the production, research, engineering, design, and accounting aspects. Horváth (1993) defined target costing as a cost planning, cost management, and cost control system. Wu and Brown

(2011) defined target costing using a broader view where they noted that it is an approach that provides goods and services in a manner consistent with the level of allowable cost by achieving the required return. Previous studies have also defined target costing as a way that contributes in decision-making and ensuring profits, through careful planning, analysis and study of the profitability and allowable cost, at the same time without neglecting the quality of products and services (Cooper & Slagmulder, 1997; Woods et al., 2012; Wu, Huang, & Brown, 2013). Hence, target costing in the aspects of activities constitutes the practices of institutions in planning, analyzing and studying the environmental conditions both internal and external to ensure profitability and continuity of the business and the quality of products and services (Cravens, Lasskb, Lowa, Marshallc, & Moncriefa, 2004). In this study, the term target costing refers to a cost management approach for effective utilization of the overall cost of financial services, and achieving the targeted profit with the lowest risk. This is via identifying, studying and analyzing the client needs, market, product or service design, teamwork spirit and continuous improvement in institution (Al Azzam, 2013). The target cost is the maximum cost that can be incurred by achieving a specific profit margin and providing products or services at a specified price (Rattray, Lord, & Shanahan, 2007; Ellram, 2006; Al-Awawdeh & Al-Sharairi, 2012), taking into consideration the institutions external and internal conditions, as well as its goals (Al Azzam, 2013).

1.7.2 Risk Management Practice

In this study, risk management is perceived from the scope of risk management practice. This is due to the fact that it is the most important aspect of risk management, as it

deals with the issue of efficiency in managing risk related issues. Risk management practice goes beyond the understanding of risk and risk management, risk identification and adoption of methods for risk assessment and risk analysis (Al-Tamimi & Al-Mazrooei, 2007). Thereby, risk management practice in this study refers to the practice of risk management in the organization itself in accordance with the policies and procedures approved by the top management within the institution and being carried out to manage risk issues efficiently.

1.7.3 Business Performance

Prior studies in the field of accounting and management have discussed various types of performance measures (Hoque & James, 2000; Chenhall & Langfield-Smith, 2007; Jun & Rowley, 2014). Consistent with previous studies, the term performance in the current study refers to the level of Jordanian financial institution performance, both financial and non-financial performance, relative to its major competitors during the last three years. In reality, financial and non-financial indicators complement each other in order to reflect performance. Otley (1999) noted that the institutions should use various measures (financial and non-financial indicators) to assess the institution business performance. Hence, this study conceptualized financial and non-financial performance as follows:

1.7.3(a) Financial Performance

Among the financial performance indicators that have often been used in previous studies are profitability (net profit), return on assets, return on equity, operating income

growth, total return, assets growth, total assets and sales growth (Hogue & James, 2000; López & Alegre, 2012; Jun & Rowley, 2014). The financial performance in this study refers to the level of a Jordanian institution's financial performance (financial performance indicators which are the overall financial performance indicators, return on assets, return on investment, profitability (net profit), and operating cash flow indicators), relative to its major competitors during the last three years (López & Alegre, 2012; Jun & Rowley, 2014).

1.7.3(b) Non-financial Performance

This study defines non-financial performance as the level of a Jordanian institution's non-financial performance (non-financial performance indicators, namely: the overall market share, the number of new clients, employee satisfaction and retention, employees' responsive toward clients, employee empowerment, employee productivity, quality of products and service, and the number of new products and services), relative to its major competitors during last three years (Hogue & James, 2000; Jun & Rowley, 2014).

1.8 Organization of Chapters

This thesis is divided into six chapters. The First chapter introduces the field of the study. The Second chapter focuses on a review of existing literature in relation to the study topic. Chapter Three presents the theoretical framework and hypotheses. After that, chapter Four describes the research methodology used. Chapter Five focuses on the analyses and presentations of results of the study. Chapter Six presents the discussion and study conclusion.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter discusses business performance (both financial and non-financial performance), management accounting and management accounting system characteristics. Then, this chapter presents modern management accounting concept by focusing on responsibility accounting and target costing approaches. Subsequently, the relevance of risk management practice within financial institutions is highlighted. After that, this chapter raises the main concerns in the area of management accounting and business performance. This chapter discusses the relationship between management accounting and business performance, as well as the role of risk management practice as a mediator.

2.1 Business Performance

Performance, traditionally, the ultimate goal of institutions is the achievement of maximum performance with low risk. During the review of literature, clearly, there are various definitions of the performance (Chow, Heaver, & Henriksson, 1994). However, the general idea of the concepts of institutions' performance is centralized in efficiency or effectiveness. This is because institutions should be profitable to survive (March & Sutton, 1997). Neely, Gregory, and Platts (1995, p. 81) suggested that performance measurement systems as "*the set of metrics used to quantify both the efficiency and effectiveness of actions*".

Institutions' performance has been included as a dependent variable in contingency studies. This is because it gives the means for determining the suitable *fit* between the accounting information systems design and its contextual variables (Chenhall & Langfield-Smith, 2003).

According to Otley (1980), performance measurement plays a major role in the institutions, and should be chosen in accordance to the contextual factor (e.g., system, procedure, strategy, technology, environment, and so on). However, the idea of institution performance is comparatively difficult to evaluate and measure. This is because there is a different data associated with the evaluation and measurement of performance in the institutions (March & Sutton, 1997). Moreover, information regarding performance is important for different stakeholders within an institution (e.g., owners and investors) to ensure that their investment decisions are the right ones. In addition, managers are interested in institution performance as a method of prioritizing the allocation of resources (Al-Mawali & Al-Shbiel, 2013). Also, employees are interested in it to ensure their incentive and remunerations (Jabeen, 2011).

Performance measurement is important in realizing the organization's targets, as it is a monitoring system used by the owners of an institution given that management and ownership are separated (Ittner & Larcker, 1998). The measurement of performance must be associated with business objectives, goals, actions and strategies in order to achieve its effectiveness and to seek commitment from the various stakeholders for the accomplishment of these targets (Becker & Gerhart, 1996). The performance measurement for an individual institution is highly dependent upon the institution's goals, objectives and

strategies (Kaplan & Norton, 1996). This also means that there are various ways and methods to the measurement of performance in the institutions. In addition, the performance measurement method employed in a particular institution may not be appropriate for another institution (Otley, 1980). Moreover, according to Ittner et al. (2003), the usage of various types of performance measurement drives to improve performance in the institutions.

There are arguments that the major performance measurement should include a mixture of indicators, namely financial indicators and non-financial indicators (Chenhall & Langfield-Smith, 2007). However, Chenhall and Langfield-Smith (2007) suggested in their study that some of non-financial performance measures are leading financial performance indicators. Non-financial performance measures help managers in improving long-term financial performance. Thereby, this study uses financial as well as non-financial performance measures in order to evaluate institution performance in the current study. This is because the best way to measure performance is financial and non-financial performance indicators together, as an integrated approach (Otley, 1980; Chenhall & Langfield-Smith, 2007; Abdul Rasid et al., 2014).

Finally, the following two sub-sections will discuss the nature of these business performance measures (financial and non-financial performance measures).

2.1.1 Financial Performance Measures

Accounting studies have used financial performance measures to evaluate the institution performance. Otley (1999) suggested that the functions of financial performance measures are the ways of financial management, and these measures (e.g., the Return on Investment - ROI) show the extent of accomplishment of the institution's objectives. In addition, he added that financial performance measures as a tool for motivation and control within the institution. In other words, financial performance measures provide financial information and data to support the operations in the institution by identification and classification their inputs and outputs in financial language.

Chenhall and Langfield-Smith (2007) noted that there are important measures to evaluate the institution performance and these financial indicators are the most commonly used. They are the Return on Equity (ROE) and the Return on Assets (ROA). In addition, Otley (1999) added that the Return on Investment (ROI) indicator is an important measure to assess the institution performance. ROE defined as net income divided by total equity in the institution (shareholder's viewpoint). ROA defined as net income divided by total assets. Also, ROI defined as the benefit (gains from investment – cost of investment) of an investment is divided by the cost of the investment. However, Sinkey (1983) and Sarita, Zandi, and Shahabi (2012) noted that the most important measures to assess the institution performance are the profitability ratios, the Return on Equity (ROE) and the Return on Investment (ROI). As a conclusion, Jun and Rowley (2014) suggested that the overall financial performance indicators, as well as, profitability, and cash flow indicators are very important indicators for the measurement of financial performance.