THE EFFECT OF COMPREHENSIVE PERFORMANCE MEASUREMENT SYSTEMS ON PSYCHOLOGICAL EMPOWERMENT AND MANAGERIAL PERFORMANCE

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My deepest love and gratitude to my parents, Hj. Sulaiman T. Mariadi and Puan Maimunah Ajim for their endless blessings and sacrifices. In particular, I would like to thank my husband, Dalahan Buduk, for his constant support and encouragement, his understandings, his patience, his love, and for always being there whenever I need a companion. My endless love to my daughter, Melina Eliza. I hope my small achievement will inspire her to reach for whatever she loves to be. Amin.
This study examines how comprehensive performance measurement systems (PMS) influence managerial performance based on the structural model developed by Hall (2008). It is proposed that the effect could be direct or indirect. The direct model proposes that comprehensive PMS directly affects managerial performance, whereas the indirect model proposes that the effects of comprehensive PMS on managerial performance are indirect through the mediating influence of psychological empowerment. These models were tested using cross-sectional data collected from a population survey of 131 bank managers and supervisors. Results using SPSS indicate that the comprehensive PMS is directly and indirectly related to managerial performance through the mediating variable of psychological empowerment. However, the indirect model is a better model as it significantly explains more variance in performance. This result highlights the role of cognitive and motivational mechanisms in helping to explain the effect of management accounting systems on managerial performance. In particular, the results indicate that comprehensive PMS influences managers' cognition and motivation, which, in turn, help influence managerial performance. The effects of moderating variable job tenure were explored and found to be insignificant on the direct and indirect relations. These empirical findings give several implications including theoretical and managerial implications. A number of research limitations are identified and suggestions for future research are proposed.
ABSTRAK

KESAN SISTEM PENGUKURAN KERJA KOMPREHENSIF KE ATAS EMPOWERMEN PSIKOLOGI DAN PRESTASI PENGURUS

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CHAPTER 1

INTRODUCTION

1.1. Introduction

The measure of performance is an essential practice in organizations and has attracted the attention of many researchers. Earlier studies include legal issues affecting performance appraisals, performance criteria, and the scales used for assessing people on them, possible sources of an appraisal, objectivity/accuracy of appraisers, and ways of bringing about and sustaining a person's performance effectiveness. However, current focus is on the identification and measurement of employee behaviors, particularly those that are task related, which impacts an organization's effectiveness (Latham & Mann, 2006).

Traditionally, performance measurement systems (PMS) are measured exclusively from the financial performance views. These lagging financial indicators only provided information about actual past performance, and failed to provide information on the drivers of future performance (Baines & Langfield-Smith, 2003). A more comprehensive PMS such as the balance scorecard was intended to overcome these limitations by including the non-financial perspectives such as customer's satisfaction, internal processes, learning and growth, market share measures, and employees' satisfaction.

To keep pace and remain competitive in the growing intensity of global challenges, organizations are continuously seeking for a more comprehensive PMS as they believe that a more comprehensive PMS will provide managers and employees with information to assist in managing their firm's operations (Fullerton & McWatters, 2002; Lillis, 2002).

Many researchers have empirically proved the effect of comprehensive PMS on organizational performance; however, there is limited empirical research that examines
the behavioral consequences of comprehensive PMS (Ittner & Larcker, 1998; Webb, 2004). Cognitive and motivational mechanisms such as psychological empowerment are strong influence on work behavior and are likely to explain the relations between comprehensive PMS and managerial performance, as evidenced in the study by Hall (2008) where psychological empowerment and role clarity were proven to fully mediate the relations.

This study will look at three variables, comprehensive performance measurement system, managerial performance, and psychological empowerment, based on the model developed by Hall (2008). The effect of each of these variables with one another, direct or indirect will be observed. The results are expected to support the findings of previous researches, and provide organizations an insight of using comprehensive PMS as a tool to induce required work behavior of employees, especially managers.

The remainder of this chapter contains six sections: the problem statement, research objectives, scope of study, significance of study, definition of key variables, and the organization of thesis.

1.2. Problem Statement

Managers are assets of every organization. Their performances are essential in improving shareholder value and create wealth to organizations. Hence, organizations are concerned with the performance of their managers and continuously trying to find tools and ways to influence their work behavior and outcome. A more comprehensive PMS believed to enhance managerial performance as it provides employees with the relevant information to enable them to perform effectively.

The purpose of performance measure or evaluation can be for judgmental, as well as developmental. Evaluations with a judgmental orientation focus on past performance as a basis for making judgments regarding which employee should be rewarded and how effective organizational programs (such as selection and training) have been. Evaluations with a developmental orientation are more concerned with improving future performance by ensuring expectations are clear and by identifying ways to facilitate employee performance through training (Ivancevich, Konopaske, & Matteson, 2005). A comprehensive PMS is assume to contribute to the improvement of
these processes due to the fact more information are available to enable employees to perform effectively to improve future performance (developmental), and provide employers with a clearer basis for making judgments of past performance such as, rewards allocations, and promotions (judgmental). (Ivancevich et al., 2005).

Based on these facts, many organizations (profit and non-profit making) are interested in adopting a more comprehensive PMS as an improvement to their traditional PMS. However, presently comprehensive PMS only popularly practiced in profit making organizations but not so in the non-profit making organizations. Difficulties of implementing in the non-profit making organizations, such as the public sector, for example, are believed mainly due to the presence of multi-stakeholders in the public sectors (Radnor & McGuire, 2004).

The main interest is to improve employee performance especially the managers. However, previous study had indicated that the effects of PMS on managerial performance are not directly related, rather indirect through cognitive and motivational mechanism such as psychological empowerment (Hall, 2008). As such, the mental perception and motivational factors could act as a bridge to link PMS and employees' work behavior.

In Malaysia, the Chief National Secretary had recently urged all the government agencies to adopt key performance indicators (KPI), a form of comprehensive PMS by the end of the 9th Malaysia Plan or year 2010. These KPIs must be translated into achievements, and the impacts of these achievements be measured. Some government agencies had adopted comprehensive PMS. As an example, most agencies and departments of the Ministry of Finance, Malaysia had adopted comprehensive PMS. Of the total eight agencies, four had implemented comprehensive PMS namely Bank Negara Malaysia, Bank Simpanan Nasional, Perbendaharaan Malaysia, and The Employees Provident Fund. The Inland Revenue Board of Malaysia (IRB) has just started in 2008. The objectives of implementing this comprehensive PMS are to serve both the judgmental and developmental purposes.

In the private sectors, comprehensive PMS are quite popular such as in the banking sector. All banks operating in Kota Kinabalu have been using a more comprehensive PMS for quite sometime.
Since managers are assets to organizations, and theories and findings had suggested the indirect relations of comprehensive PMS and managerial performance through psychological empowerment as the intervening variable (Hall, 2008), this research poses these questions:
1. Does the same relation exist in the banking industry in Kota Kinabalu, Sabah?
2. What is the level of psychological empowerment of the bank managers in Kota Kinabalu?, and,
3. How does psychological empowerment mediate the relationship between PMS and managerial performance?

1.3. Research Objectives

The main objective of this study is to test a model that explained the relationship between these three variables namely comprehensive PMS, psychological empowerment, and managerial performance. The direct and indirect effect of comprehensive PMS to managerial performance will be tested. Overall, the objectives of this study are:
1. To investigate the relations between comprehensive PMS and managerial performance;
2. To assess the level of psychological empowerment among the bank managers in Kota Kinabalu; and
3. To examine the role of psychological empowerment in the relationship between comprehensive PMS and managerial performance.

1.4. Scope of Study

This study is to be conducted among the bank managers and officers having managerial responsibility in the banks within Kota Kinabalu. This sector is chosen as they have been identified as one of the sectors, which have adopted comprehensive PMS.

1.5. Significance of Study

The contributions and significance of this study can be summarized as follows:
1. This study could enrich the little empirical study on the direct and/or indirect relations of control system components on work performance. By establishing
the direct and indirect effects of comprehensive PMS on managerial performance, organizations could take necessary measures such as enhancing psychological empowerment to improve employees/managers' performance.

2. Some of the banks sampled are government-owned, such as Bank Simpanan Nasional and Bank Negara Malaysia under purview of the respective Ministry. This could more or less be an example and guidance of other public sectors considering adopting a more balance performance metrics in their organizations.

3. It is hopeful that this study will provide some feedback on the usage of a comprehensive PMS in the banking industry in Kota Kinabalu and in a small way could enlighten the role of psychological empowerment in making the performance measure system to be more effective.

1.6. Definition of Key Variables

The key variables used in this study are defined as follows:

1.6.1. Comprehensive Performance Measurement Systems

Performance measurement defined as a process of the efficiency and effectiveness of action, whereas performance measure is the metric used for this quantification. Thus, performance measurement system can be defined a process to measure the efficiency and the effectiveness of an action (Neely, 1994).

A contemporary approach to the lagging traditional PMS is the more comprehensive PMS that incorporates a more balanced performance metrics, the financial and non-financial measures.

1.6.2. Psychological Empowerment

Empowerment is defined in the Oxford Advanced Learner's Dictionary of Current English as "to give power or authority to act". Merriam Webster's New American Dictionary defines empowerment as "to give official authority or legal power to". From these two definitions, it could be said that 'power or authority' and 'the act of doing' are two important elements of empowerment.
In the sociological context, empowerment carries a meaning of giving power/authority for a person to act (for example, parents giving power/authority to children to make certain decisions), whereas, in the organizational context, empowerment involves the employer/superior giving power/authority to employees/subordinates to act in a defined working scope (Arsiah, 2005). In this study, empowerment will be looked in the context of organizations from the psychological perspective.

Psychological empowerment is the psychological experiences of empowerment. Conger and Kanungo (1988) defined psychological empowerment as a process of promoting self-efficacy among members of organizations by identifying factors contributing to powerlessness and overcoming powerlessness through informal techniques and organizational practices that produced information of efficacy.

Thomas and Velthouse (1990) proposed that the experience of empowerment involved four task assessments:
1. ‘Impact’ defined as the degree to which behavior seen as making a difference in terms of accomplishing the purpose of task;
2. ‘Competence’ defined as the degree to which a person can perform task activities successfully when he or she tries;
3. ‘Meaningfulness’ involves the individual’s intrinsic caring about a given task; and
4. ‘Choice or self-determination’ involves causal responsibility for a person’s action.

1.6.3. Managerial Performance

Merriam Webster’s New American Dictionary defines ‘managerial’ as the one who manages while ‘performance’ can also mean as accomplishment. Therefore, ‘managerial performance’ can mean as the performance or the accomplishment of the one who manages.

Managerial performance is multidimensional. In this study, managerial performance encompasses eight dimensions related to planning, investigating, coordinating, evaluating, supervising, staffing, negotiating and representing and an overall assessment of performance (Hall, 2008 cited Mahoney, Jerdee, & Carroll, 1965)
1.6.4. Demographics

*Merriam Webster's New American Dictionary* defines 'demographics' as the statistical characteristics of human population. It is also a shorthand term for 'population characteristics', which includes race, gender, income, mobility, educational attainment, home ownership, employment status, and even location (Wikipedia).

1.7. Organization of Thesis

**Chapter 1**, as the introducing chapter, gives an overview of the research, the objectives, the significance, the scope of the study, and the definition of the key variables used. The following **Chapter 2** presents the review of literature of past studies on the independent, dependent, mediating, and moderating variable that relates to the topic of this study. The next **Chapter 3** explains the research methodology and framework that guide this research, including the research framework, the definition of all the variables used, the research hypotheses, unit of analysis, sampling and instruments design, data collection and data analysis techniques. Subsequent **Chapter 4** illustrates the analysis of results, starting from the collection of questionnaires, the profile of respondents, reliability testing, descriptive analysis of variables and hypotheses testing. **Chapter 5** concludes the thesis with the discussion on the findings, the implications and limitations of this research, and suggestions for future research.
CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

The previous chapter gives an overview of the research. This chapter, however, presents the review of past studies on the independent, dependent, mediating, and moderating variable that relates to the topics of this study.

2.2. Comprehensive Performance Measurement System

The literature concerning performance measure can be grouped into three phases. The first phase began in the 1880s and ended in the 1980s, emphasizing on financial measures of performance such as profit, return on investment, and productivity (Ghalayini, Noble, & Crowe, 1997). The second phase started in the early 1980s as a result of global competition that changed customer requirements and forced the implementation of new technologies and philosophies of production and management that substantiates for the inclusion of non-financial measures (Ghalayini et al., 1997). The third phase began in the 1990s, where performance measurement evolved from loose ideas of including both financial and non-financial measures to more complex frameworks based on balanced measures that are linked to strategy (Chenhall & Langfield-Smith, 2007).

This phenomenon has been observed in the study conducted by Baines and Langfield-Smith (2003) on 141 manufacturing organizations. They noted an increasingly competitive environment has resulted in an increased focus on differentiation strategies, which in turn, has influenced changes in organizational design, advanced manufacturing technology and management accounting practices. These three changes have led to a greater reliance on non-financial accounting information, which has led to improved organizational performance.
The extent of use of PMS not only influenced by the external environment, but affected as well by the internal organizational factors such as organizational culture. The results of a survey by Henri (2006) using 383 top corporate or local management team revealed that top managers of firms reflecting a flexible dominant type tend to use more performance measures extent than top managers of firms reflecting a control dominant type. The results also suggest that the diversity of measurement varies depending on the type of use. Hence, before implementing PMS, it is important for organizations to define their expected use to better guide the design of the system toward the right diversity of performance measures (Henri, 2006).

The changes in PMS can arise from the need to balance the external and internal imperatives. As such, the internal characteristics of organization and the external contexts in which they operate, change across life-cycle stages as observed by Moores and Yuen (2001). Their study among 49 CEOs of firms found that management accounting systems (MAS) attributes, such as PMS differed as firms' transit from one stage to the next. Firms at the 'birth stage' were able to rely less on formal systems due to homogeneous product/market and simple structure. As firms enter 'growth stages', firms formalized their PMS in order to deal with the more diverse and complex structures. Well-established 'matured firms' with increasing levels of stability were able to reduce the formality of their systems. However, if stability was superseded by poor performance, then firms need to revive by increasing their reliance on formal systems. As firms' activities became stagnant with limited resources at the 'decline stage', their PMS accordingly became less formal. They conclude that PMS were able to facilitate firms pursuing their respective strategies while exercising necessary controls as required at different stages. In fact, they define such stages.

PMS is a component of management control system (MCS). The change in PMS in response to the environmental, organizational and decision-making style factors are due to its ability to provide information contributing to top management's decision-making process. However, many authors suggest that financial measures are not designed to provide relevant information needed for the internal decision-making process (Henri, 2006 cited Fisher, 1992). Hoque, Mia, and Alam (2001) noted the various shortcomings of financial measures such as narrow in focus, historical in nature, and in many cases incomplete. A survey of senior executives conducted by Ittner and Larcker (2001) concludes that short-term financial measures ranked fifth behind four non-financial measures. Henri (2006), however, contended that both
measures capture a portion of the various facets of organizational effectiveness. The ends and output are revealed by the financial measures, while the means and processes are reflected by non-financial measures. For decision-making purposes, the non-financial information may allow a better understanding of strategic issues, but financial data reflects the consequences in terms of the primary objective of creating shareholder value.

Further, focusing on financial metrics alone motivate managers to cut back on investments that may provide long-term benefits at the cost of a lower financial performance in the short term. Inclusion of a non-financial metric together with the financial metrics in the PMS, dissuade managers from taking actions solely to optimize short term profitability goals, if this metric reflects long term value but requires tradeoffs with financial metrics in the short run (Banker, Chang, Janakiraman & Konstans, 2004). Their investigation on the relations between a financial performance metric (return on assets – ROA) and three non-financial metrics reported and used in more than 50 local exchange carriers in the US telecommunications industry revealed that managers must tradeoff ROA when increasing the percentage of business access lines, but not with the other two metrics (number of access lines per employee and percentage of digital access lines) as they are congruent with ROA. Therefore, they conclude that the percentage of business access lines should be included in the firm’s PMS (in addition to ROA) to properly motivate its managers.

Recent research has also emphasized the importance of examining the information dimensions of comprehensive PMS and the extent they integrate with the goals and strategies across the value chain. In a survey of 80 strategic business unit manager, Chenhall (2005) identified three information components that described integrative PMS (strategic and operational linkages, supplier orientation, and customer orientation) and found them to be primary information characteristic that enhance firm’s strategic competitiveness and outcome.

Another study by Ittner, Larcker, and Randall (2003) identified the overall measurement practices of strategic PMS has the strongest relation to stock market performance indicating strategic PMS more likely forward looking stock market measures than the short-term, historical accounting measures. They argued that a broad set of measures, or ‘measurement diversity’, is an important feature of more comprehensive PMS. They consider measurement diversity as supplementing
traditional financial measures with a diverse mix of non-financial measures that are expected to capture key strategic performance dimensions not accurately reflected in short-term accounting measures. Similarly, Henri (2006) argued that comprehensive systems are designed to measure performance in all the important areas of the firm. These studies indicate that providing a broad set of measures that cover different parts of the organization's operation is an important aspect of more comprehensive PMS.

The integration of measures with strategy and providing information about parts of the value chain is also an important feature of more comprehensive PMS. A more comprehensive PMS provides an understanding of the linkages between business operations and strategy (Chenhall, 2005). The inclusion of a diverse set of non-financial measures such as market, customer, process, and competitor information are believed to provide better information on strategic progress and success (Ittner et al., 2003). Popular comprehensive PMS includes the balance scorecard (Hall, 2008 cited Kaplan & Norton, 1996) and tableau de bord (Epstein & Manzoni, 1998).

The studies mentioned earlier generally indicate the attributes and determinants of PMS. Consequently, the studies on the outcomes of PMS are surmounting. Past research has focused on the relation between comprehensive PMS and organizational performance, particularly the role of comprehensive PMS in assisting managers to develop competitive strategies for their firms. Davis and Albright (2004) found evidence of superior financial performance for bank branches implementing the Balance Scorecard (BSC) when compared to the non-BSC implementing branches. Their findings are consistent with similar studies in the manufacturing industry (Hoque & James, 2000) and the hotel industry (Banker, Potter, & Srinivasan, 2000).

Fullerton and McWatters (2002) conducted a study among 253 top manufacturing executives and found the use of non-traditional performance measures such as bottom-up measures, product quality, and vendor quality, as well as incentives systems of employee empowerment and compensation rewards for quality production relates to the degree of the implementation of just-in-time (JIT) practices.

Positive relations between strategic PMS and organizational performance as reported by Ittner et al. (2003) based on their study on 140 financial service firms. They reported that financial firms that make more extensive use of a broad set of PMS
REFERENCES


