

Performance Measurement System and Business Performance Measurement System: A comparative study

Nor Mahirah Binti Mustapha
PhD Candidate: Faculty of Industrial Management
Universiti Malaysia Pahang
Pahang, Malaysia
malaysian012@gmail.com

Shahryar Sorooshian
Senior Lecturer: Faculty of Industrial Management
Universiti Malaysia Pahang
Pahang, Malaysia
sorooshian@gmail.com

Noor Azlinna Azizan
Professor: Faculty of Industrial Management
Universiti Malaysia Pahang
Pahang, Malaysia
azlinna@yahoo.com

Abstract-Many researchers claimed to use the term of a performance measurement system (PMS) to evaluate the business performance. However, these works have not adequately been classified in detail regarding the components they concentrate on, and what conditions are available in the empirical context they contemplate. This confusion is not pleasant because it affects the validity of new studies. This paper used a literature review as a methodology to address the issue of the differences between simple PMS and business performance measurement system (BPMS) and explain the proposed action should be taken to improve measurement system for SMEs in Malaysia. There are six main differences; goals, system and components, features, roles, process, and customer focus. Specifically, this paper clearly defined the significant to differentiate them. I argue that SMEs needs BPMS because SMEs are not a public agency or non-profit sector organizations as well as business activity is fundamental for SMEs. In conclusion, this paper sheds new light on the rarely acknowledged issue of BPMS with special attention to avoid the confusion between the two terms.

Keywords- *Business Performance; Performance Measurement System; Small and Medium Enterprises (SMEs)*

I. INTRODUCTION

Many areas of activities using term performance widely and, usually the organization measure the performance to identify how well a mechanism or process in the range of activities achieves its purpose. An organization's performance as "how good the organization is managed" and how is the impact value that organization delivers to customers and other stakeholders[1]. Measuring performance contains two fundamental dimensions, which are effectiveness and efficiency. An effectiveness refers to the degree to which stakeholder requirements are achieved, while efficiency is a measure of how financially the firm's resources are used when providing a given level of stakeholder satisfaction[2]. To gain prevalent relative-performance, an organization must accomplish its expected objectives with greater efficiency and effectiveness than its competitors [3]. To illustrate efficiency, effectiveness and the value delivered to the organization, multi measures should be utilized. However, the good numbers of measures are not fixed.

Many people are confused about the use of the word performance measurement system to measure the performance of the organization and performance measurement system to evaluate business performance. Then, this paper will discuss more detail about the differences between PMS and BPMS, and explain the proposed action to be taken to create a new system for SMEs. As we know, SMEs are organizations that conduct business as a challenge to stay compete in the market after established. The success of SMEs strives to get ahead in business activities. Some use the term PMS researcher for

businesses without classifying in detail so that there is no difference shown between simple PMS. This confusion is not good because it affects the validity of new studies. PMS structure and BPMS also have significant differences. In addition, the use of BPMS for SMEs is to distinguish the organization is not a government agency or non-profit organizations.

II. SMALL AND MEDIUM ENTERPRISES (SME)

Small and medium enterprises have been categorized by the Small and Medium Enterprises Corporation Malaysia (SME Corp Malaysia) based on the yearly sales turnover and also how many full-time employees they have. Every SME's definition varies according to each country because the difference on the local economic situation. In addition, SME performance has been defined as the ability to create jobs and wealth by business start-up, the ability to self-reliance, and sustainability[4]. According to the annual report 2010/2011 SME serving 5 years[5], SMEs accounted for 99.2% of business establishments in Malaysia and the remaining formations are large business.

SMEs in Malaysia are involved in a range of activities such as grocery store operators, petty traders, medium-sized contract manufacturers supplying parts and components to the multinational company, and also might be doing professional services such as software firms. It is known as the heterogeneous market same like other countries. They also operated in such a distinctive market environment like urban, rural, online, physical, domestic, regional, and international. SMEs is unique, when they possess the different level of skills depending on their activities and expertise.

Size	Manufacturing	Services & other sectors
Micro	Less than RM300,000	Less than RM300,000
Small	From RM300,000 to less than RM15 million	From RM300,000 to less than RM3 million
Medium	From RM15 million to not exceeding RM50 million	From RM3 million to not exceeding RM20 million

Annual Sales Turnover for Malaysian SME

Size	Manufacturing(including agro-based) & manufacturing- related services	Primary Agriculture	Services sector (include ICT)
Micro	Less than 5 employees	Less than 5 employees	Less than 5 employees
Small	From 5 to less than 50 employees	From 5 to less than 20 employees	From 5 to less than 20 employees
Medium	From 50 to less than 150 employees	From 20 to less than 50 employees	From 20 to less than 50 employees

Number of Full Time Employees

Performance of SMEs is crucial for its contribution to economic and changes Malaysia into a high income and knowledge-based economy, through its contribution to the national GDP. According to the Department of Statistic, Malaysia, SMEs reduced in the number in 2011, which is 16,873 while in 2010, SMEs is 17,157 affected the export industry, employment and economic development[5].

III. BUSINESS PERFORMANCE MEASUREMENT SYSTEM

The features are a component or element that must be present in the form of a performance measurement system. This component is called as the key qualities that must exist to measure performance. Without this, a PMS does not qualify to use to measure performance. [6, 7].

A. Business Performance System Requirement

A business performance measurement systems referred to the use of the multi-dimensional set of performance measures for the planning and management of a business[8]. Unfortunately, most of the researchers in the field of performance measurement tend to use the term business performance measurement(BPM) systems without explaining exactly what they mean it [6]. They are not clearly clarified what is BPMS is, then this issue creates confusion and comparability problem, and makes it trouble to other researchers to build on one each other's work. With regard to that issue, this research will obviously use the BPMS characteristics as the based to develop a model for measuring the performance of SMEs.

The previous author suggested that there are three categories to distinguish BPMS from simple PMS which are features, roles, and process[6]. It is important to distinguish those systems because these specifications will define the boundaries of the system, and for what organization it can be used. This research work surely will be more transparent and comparable with the research in the field of performance measurement. While another author claimed that have seven requirements should be fulfilled to create BPMS, which are management, systems and components, goal, features, process, information and communication, and customer focus[7].



Source:Kwee Keong, 2013 [7]

IV. COMPARISONS BETWEEN PMS AND BPMS

Category	PMS	BPMS	Proposed actions
Goal	Simple PMS does not explain clearly when measurement and performance goal are changing in used and not in line.	The goal of business measurement is not widely discussed	Needs to clearly differentiate between measurement and performance goals. BP goals should be incorporated as part of measurement and performance goals
Systems and component	PMS consists of components, but not based on a systems approach (theory)	Business performance and management require the necessary components to manage and evaluate the complex interactions of activities in business activity. Because BP is different, the performance measures are also different according to the current situation and the goal of the organization itself.	Create a system that includes important components in conducting business activities of SMEs.
Features	Usually, PMS uses three types of scale of metrics, measures, and indicators. Performance measures can be subjective or objective (financial), but usually use financial information only to measure performance.	2 features in drafting a BPM system is the selection of performance measures associated with business activities, and the second is the supporting infrastructure.	Due to the current rapid economic change according to current trends, business interests are no longer located exclusively on the financial aspect. Then, I would choose the financial and non-financial performance measures. As this study is still in its early stages, the scale is measures and metrics to measure business performance.
Roles	Roles of simple PMS is not exhaustive, and is subject to some limited interest only	<ol style="list-style-type: none"> 1. Measure performance 2. Strategy management 3. Communication 4. Influence behavior 5. Learning and improvement 	This system will be used to meet the roles of BPMS.
Process	Process in simple PMS more focused on workflow, although it is different from each other. They focus on the conversion from data input to output data	<ol style="list-style-type: none"> 1. Selection and design measures 2. Collection and manipulation of data 3. Information management 4. Performance evaluation and rewards 5. Systematic review 	This study will use a process through which the business activities of SMEs, as a clearer picture of their performance measures. As this study is still in its early stages, the process focuses on levels 1, 2, and 3.
Customer Focus	Simple PMS compromising customers in measuring performance, and is not concerned with the customer to deliver quality	In business activity, customer is the backbone of the company's success. Without reach them, the company did not have anything	This study takes into account to survey the customer's level of importance.

The following is a clear about the differences between simple PMS and BPMS. The list in the category was required in the BPM system, while not necessarily have in common PMS system [6, 7]. It should be noted that the use of incorrect or misleading to certainly had an impact on data obtained after measuring the performance. If an important component to be

measured is likely to miss, then the error occurred. While proposed action will be taken to ensure that the research gap from the prior study can be filled and produce a more effective system, in order to get the maximum impact. The benefit to be gained is very meaningful for SMEs business, especially in Malaysia.

V. THE SIGNIFICANT TO DIFFERENTIATE THEM

1. To differentiate SME from public and non profit organization[6]. SME doing business as a key activity to continue spreading in the market, and of course profit is the main objective to be achieved. It differs from public organizations, usually the fund may be obtained from the government or statutory bodies, as well as non-profit organization, whose activities are more to charity. Therefore, it is important to use different systems to measure their performance.
2. Business activity is the main activity[9]. Different organizations have different key activities. It is important to use the special PMS to measure business performance. Components in BPMS may be matched to the business situation, compared with simple PMS is to measure operations, work flow and may not directly affect customer satisfaction aspect.
3. Use the right performance measures ensure the right action to take [10]. When using the right system, the result to be obtained can definitely help enhance performance after being improved and enhanced what was lacking. The authors recommended measuring business performance through the business performance measurement (BPM) system[6, 11]. According to them, the BPM system is an important tool within many research areas, particularly in business and social science studies

ACKNOWLEDGMENT

I would like to acknowledge the Ministry of High Education, Malaysia who gave me the financial support to pursue my PhD in Industrial Management.

REFERENCES

1. Moullin, M., *Performance measurement definitions-Linking performance measurement and organisational excellence*. International Journal of Health Care Quality Assurance, 2007. **20**(3): p. 181-183.
2. Neely, A., et al., *Performance Measurement System Design:Developing and testing a process-based approach*. International Journal of Operations & Production Management, 2000. **20**(10): p. 1119-1145.
3. Neely, A. and M. Bourne, *Why Measurement Initiatives Fail*. Measuring Business Excellence, 2000. **4**(4): p. 3-7.
4. K. Sandberg, S. Vinberg, and Y. Pan. "An exploratory study of women in microenterprise: Owner perceptions of economic policy in a rural municipality: Gender- related differences". in *CD-Proceedings of 12th Nordic Conference on Small Business Research*,. 2002.
5. SME;Corp, *SME Annual Report 2010/11*. 2010, SME Corporation Malaysia: Kuala Lumpur, Malaysia.
6. Bourne, M., et al., *Towards a definition of a business performance measurement system*. International Journal of Operations & Production Management, 2007. **27**(8): p. 784-801.
7. Keong Choong, K., *Are PMS meeting the measurement needs of BPM? A literature review*. Business Process Management Journal, 2013. **19**(3): p. 535-574.
8. Bourne, M., et al., *Implementing Performance Measurement System: A Literature Review*. International Journal of Business Performance Management, 2003. **5**(1): p. 1-24.
9. Dallas, I. and M.T. Wynn, *Business Process Management in Small Business: A Case Study*. 2014: p. 25-46.
10. Siti Nur 'Atikah, Z., *Business Performance for SMEs: Subjective or Objective Measures?* Review Integrative Business Economic Research, 2014. **3**(1): p. 371-381.
11. Mann, R. and D. Kehoe, *An evaluation of the effects of quality improvement activities on business performance*. International Journal of Quality & Reliability Management, 1994. **11**(4): p. 29-44.

BIOGRAPHY

Nor Mahirah Binti Mustapha is a Research Assistant and currently pursuing PhD in Industrial Management at Faculty of Industrial Management, Universiti Malaysia Pahang. She holds Diploma in Business Management and BBA (Hons) in Marketing from University of Technology MARA, Malaysia and Master in Business Administration from Universiti Malaysia Pahang. She has published and reviewed a number of journal and conference papers. Her research interests include performance management, Small and Medium Enterprises (SMEs), and business management.

Dr. Shahryar Sorooshian is Senior Lecturer in Faculty of Industrial Management, Universiti Malaysia Pahang. He had his PhD in Industrial Engineering from Malaysia. He has published a wealth of books, journal, and conference papers with honors and awards. He also has completed the research projects with Universiti Malaysia Pahang and Taylors University. His research interests include industrial management, managerial decision making, business and management performance, operational management and Small and Medium Enterprises. He is member of editorial board in some scientific journals and conferences.

Professor Noor Azlinna Azizan is currently Senior Lecturer and Director of Entrepreneurial Program in Universiti Malaysia Pahang. She holds her PhD in Financial and Investment Analysis, from University of Liverpool, England. She has taught courses in entrepreneurship, management, and finance program for engineers. She has almost 15 years in academician field, and has published lot of journal papers, conference papers, and wealth of books. Her research interest includes finance, Small and Medium Enterprises (SMEs), Islamic finance, and business management.