FACTORS INFLUENCING THE PERFORMANCE MEASUREMENT SYSTEM EFFECTIVENESS– RESEARCH DIRECTION IN ENTERPRISES IN VIETNAM

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Summary

Many organizations apply performance management systems (PMS), based on such measurement frameworks as critical success factors, key performance indicators, the balanced scorecard etc. to improve their results. However, in practice, not all of them are successful in implementing a PMS because the influencing factors are not taken into account enough. This paper will review the factors influencing the performance measurement system from the literature and recommend some research directions relating to this topic in enterprises in Vietnam.

Purpose – This paper aims to understand the factors influencing the effectiveness of the performance measurement system and future research direction on this topic in the context of enterprises in Vietnam

Design/methodology/approach: The sources of literature reviewed are from diverse academic disciplines (e.g. operations management, strategic management, management accounting and organisational behaviour). The materials collected includes 41 papers which come from scientific literature, professional journal and relating websites. The authors’ approach is illustrative and selective. It describes characteristics of a PMS and factors influencing the PMS effectiveness. The studies relating to PMS in enterprises in Vietnam are also reviewed

Findings: The factors influencing the PMS effectiveness in the literature are divided mainly into three group: context, content and process. However, most of the researches on this topic have pointed out the influencing factors to PMS in developed countries only, future researches should be conducted in developing countries like Vietnam to confirm the influencing level of each factors which will be useful for the managers to decide which factors to focus on to implement PMS successfully.

Key words: Performance measurement system, strategic performance measurement, PMS

1. Introduction

To survive in today’s rapidly changing environment, organizations must identify their existing positions, clarify their goals, and operate more effectively and efficiently.
Performance measurement systems (PMS) assist organizations in achieving such objectives. Therefore, this topic is getting attention from both researchers and managers. The ISI Web of Knowledge lists 6,365 scientific publications on performance measurement for the time period 2001–2005. This is equivalent to one new scientific paper appearing on the subject every seven hours of every working day. In December 2005, Amazon listed over 3,700 books on performance measurement, while the latest estimates suggest that there are close to 100 software vendors selling performance-reporting packages (Neely, 2005). However, despite this popularity, there is evidence that not all performance measurement systems are successful. Therefore, the first objective of this paper is to contribute to a better understanding of the factors which influence the success or failure of PMS through reviewing the literature.

According to Farashahi et al, 2005, over the last twenty years of empirical research grounded in institutional theory found that most studies focused on developed countries (95 percent) and that only a small portion (five percent) of the studies tried to test institutional theory in developing countries. As a result, there has been little structural research on institutional effect and change in emerging countries which is surprising because many of these countries offer a highly dynamic environment which is a good testing ground for new theory, techniques and concepts of business and management (Pacek and Thorniley, 2004). It has to be noted that quite a few scholars doubt whether existing Western management practices can and will work in emerging markets, and it has long been recognized that culture is a major source of differences in measurement and reporting standards and methods (Piercy et al., 2004). Performance management can be regarded as one of those theories whose validity needs to be tested in an emerging country’s context, especially in Vietnam, a developing countries of South East Asia, as this context can be more dynamic and be completely different from a developed country’s context. Therefore, the second objective of this research is to recommend some research direction of this topic in enterprises in Vietnam.

The paper starts by considering the definitions used in PMS then goes on to briefly trace the background to the development of performance measurement and the main performance measurement frameworks. Then, the paper reviews the literature on factors influencing the PMS and some research implication in Vietnam.

2. Definition of performance measurement system

According to Neely et al, 1995, performance measurement system is a topic often discussed but rarely defined. PMS refers to the use of a multi-dimensional set of performance measures. The set of measures is multi-dimensional as it includes both financial and non-
financial measures, it includes both internal and external measures of performance and it often includes both measures which quantify what has been achieved as well as measures which are used to help predict the future (Neely, 2003). This system cannot be done in isolation. It is only relevant within a reference framework against which the efficiency and effectiveness of action can be judged. In the past, performance measurement has been criticized for judging performance against the wrong frame of reference and now there is widespread support for the belief that performance measures should be developed from strategy.

Performance measurement has an impact on the environment in which it operates. Starting to measure, deciding what to measure, how to measure and what the targets will be, are all acts which influence individuals and groups within the organization. Once measurement has started, the performance review will have consequences, as will the actions agreed upon as a result of that review. Performance measurement, is therefore, an integral part of the management planning and control system of the organization being measured.

Examining the most recent literature, words like “balanced”, “integrated”, “linked”, “multifaceted” or “multidimensional” are used to describe PMSs (Carlos F. Gomes et al., 2004). Since the PMS has been designed, implemented and managed as part of a strategic management system. The measures should be derived from strategy and should provide consistency for decision making and action (Neely et al., 2005). Performance measurement system helps to link measures to strategy, therefore, this term sometimes mentioned by the researchers as strategic performance measurement (SPM) systems.

There are 7 characteristics of a PMS summarized by Mel Hudson et al. (2001) from literature after they removed duplications and focused on critical characteristics. The details are stated in following table:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derived from strategy</td>
<td>Globerson, 1985; Maskell, 1989; Dixonetal., 1990; Lynch and Cross, 1991; Neely et al., 1996a</td>
</tr>
<tr>
<td>Clearly defined with an explicit purpose</td>
<td>Globerson, 1985; Neely et al., 1996a</td>
</tr>
<tr>
<td>Relevant and easy to maintain</td>
<td>Maskell, 1989; Lynch and Cross, 1991</td>
</tr>
<tr>
<td>Simple to understand and use</td>
<td>Maskell, 1989; Lynch and Cross, 1991; Neely et al., 1996a</td>
</tr>
<tr>
<td>Provide fast and accurate feedback</td>
<td>Globerson, 1985; Maskell, 1989; Dixonetal., 1990; Neely et al., 1996a</td>
</tr>
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</table>
3. Development of research on PMS and PMS frameworks

Performance measures are an integrated part of the planning and control cycle (Barnard, 1962). Managers have been planning and controlling the deployment of resources since the organization was established. According to Chandler (1977), most of the basic methods used to manage big businesses today were in place by 1910 by Du pont when three Du pont cousins consolidated their small enterprises with many other small single unit family firms, they reorganized the American explosives industry and installed an organizational structural that incorporate the “best practice” of the day.

The basic management techniques have been used for so long and undoubtedly, business performance measurement is one of these techniques. Therefore, surely most of organization should have had well developed performance measurement system for many years by now (Neely, 1999).

According to Ghalayini and Noble (1996), the literature concerning performance measurement evolved through two phases. The first phase was started in the late 1880s, while the second phase in the late 1980s. The first phase was characterized by its cost accounting orientation, focusing solely on financial measures, when measuring performance tends to encourage short-term thinking. This argument was further reinforced on the ground that traditional financially-based performance measurement systems failed to measure and integrate all the factors critical to business success (Kaplan, 1992).

The mid-1980 was a turning point in the performance measurement literature, as it marked the beginning of the second phase. This phase was associated with the growth of global business activities and the changes brought about by such growth (Carlos F. Gomes et al, 2004). The literature on PMS is researched and developed continuously. In the mid 1990s, the researchers focused on the design of PMS systems (Kaplan and Norton, 1996; Neely et al, 1995, 1996). During this times, managers concerned about what types of measure should they select, many nonfinancial measure were recommended and employ to fill the gaps and limitation of traditional financial measures (Kaplan, 1996,…). In the late 1990 and early 2000s, authors became more interested in the implementation process of the system and the reasons why many organizations struggles in this task.

<table>
<thead>
<tr>
<th>Link operations to strategic goals</th>
<th>Lynch and Cross, 1991;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulate continuous improvement</td>
<td>Lynch and Cross, 1991; Maskell, 1989 Neely et al., 1996a</td>
</tr>
</tbody>
</table>

Source: Mel Hudson et al (2001)
Over the past few decades, there PMS has undergone some main paths of evolution from operations to strategic; from measurement to management; from static to dynamic; and from shareholder values (economic-profits) to stakeholder focuses (Suwit Srimai et al, 2011). Many performance measurement frameworks have been developed with different dimensions of performance measures.

Table 2: Frameworks and dimensions of performance measures

<table>
<thead>
<tr>
<th>Performance systems</th>
<th>Year introduced</th>
<th>Dimensions of performance measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sink and Tuttle Performance Measurement model (S&amp;T; Sink and Tuttle, 1989, 1990)</td>
<td>1985</td>
<td>Effectiveness, efficiency, quality, productivity, quality of work life, innovation, and profitability/budget ability</td>
</tr>
<tr>
<td>The Strategic Measurement Analysis and Reporting Technique system (SMART; Cross and Lynch, 1988)</td>
<td>1988</td>
<td>Market, financial, customer selection, flexibility, productivity, quality, delivery, process time, cost</td>
</tr>
<tr>
<td>World Class Manufacturing Performance Measurement system (WCMPM; Maskell, 1989, 1991)</td>
<td>1989</td>
<td>Quality, delivery, production process times, flexibility, costs</td>
</tr>
<tr>
<td>Skandia Business Navigator (SBN; Edvinsson and Malone, 1997)</td>
<td>1991</td>
<td>Financial, customer, human, process, and renewal and development focus</td>
</tr>
<tr>
<td>Balanced Scorecard (BSC; Kaplan and Norton, 1992)</td>
<td>1992</td>
<td>Financial, customer, internal processes, and learning and growth perspectives</td>
</tr>
<tr>
<td>Knowledge-based Measurement Model (KBM; Sveiby, 1997)</td>
<td>1997</td>
<td>Three sets of measures – growth and renewal, efficiency, and stability – for three intangible asset categories – employee’s competences, internal structure, and external structure</td>
</tr>
<tr>
<td>Comparative Business Scorecard (CBS; Kanji, 1998)</td>
<td>1998</td>
<td>Stakeholder values, process excellence, organizational learning, delighting stakeholders</td>
</tr>
<tr>
<td>Framework</td>
<td>Year</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Performance Prism (PP; Neely et al., 2002)</td>
<td>2001</td>
<td>Stakeholder satisfaction, strategies, processes, capabilities, stakeholder contribution</td>
</tr>
<tr>
<td>Dynamic Multi-dimensional Performance framework (DMP; Maltz et al., 2003)</td>
<td>2003</td>
<td>Financial, market, process, people, and future</td>
</tr>
</tbody>
</table>

Source: Suwit Srimai et al, 2011

### 4. Factors influencing PMS effectiveness

It’s important that the PMS should be a dynamic system so that it performance measures can be relevant and continue to reflect the issues of importance to the business (Lynch and Cross, 1991). This means, the PMS should be reviewed and modified as the business situation and environment change. However, few organizations have a systematic process to manage the changes of their performance measurement system.

Researchers discovered many factors that are facilitators and barriers to this changes of the PMS. These factors are divided into 4 groups: process, people, infrastructure, culture. A well designed measurement systems should have: (1) a process for reviewing, modifying and deploying measures; (2) skills to use, reflect on, modify and deploy measures; (3) flexible systems that enable the collection, analysis and reporting of appropriate data; (4) a measurement culture to ensure that the value of measurement, and importance of maintaining relevant and appropriate measure are appreciated (Mike Kennerley and Andy Neely, 2002, 2003).

From other view, the influencing factors are classified in three main groups according to Pettigrew et al’s (1989) framework of context, content and process. Published research suggests that external environmental factors such as market uncertainty, market competitiveness supplier characteristic and the economic situation do have an impact on performance measurement effectiveness, but so far there is no overarching framework to describe this relationship. The impact of internal context has been more widely researched from organization size and structure, culture and management style, management resources and capabilities, the interface between the measurement system and other processes and the maturity of the system itself (Bourne et al, 2005). The content of the measurement system is concerned with what is being measured and how the measures are structured. Empirical content studies suggest that performance measurement is more effective when the measures are appropriately designed (Neely et al, 1997), include multiple dimensions and are structured in a way that helps managers understand the interrelationship and reflects strategy.
Four main processes have been identified in performance measurement (Neely et al, 2000; Bourne et al, 2000); these are design, implementation, use and refreshing. Based on a literature review and interviews with a number of key professionals, Franco and Bourne (2005) have investigated 9 critical factors play a role in enabling organizations to effectively use their PMSs:

**Table 3: Critical factors influencing the PMS effectiveness**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>Corporate culture (performance, discussion and analysis, measurement driven, improvement)</td>
</tr>
<tr>
<td>Management leadership/Commitment</td>
<td>Leadership for managing through measures and management team commitment to the SPM system (time devoted to it, desire for it)</td>
</tr>
<tr>
<td>Compensation</td>
<td>Link of measures to compensation</td>
</tr>
<tr>
<td>Education and understanding</td>
<td>People’s education and training for understanding of the measures and SPM system</td>
</tr>
<tr>
<td>Communication and reporting</td>
<td>Open and clear communication with timeliness and easy To understand reporting system</td>
</tr>
<tr>
<td>Review and update</td>
<td>Continuously review, update and challenge the SPM System</td>
</tr>
<tr>
<td>Data processes and IT</td>
<td>Easy process of collection, analysis and interpretation of Data (understand trends). Supports IT systems</td>
</tr>
<tr>
<td>SPM Framework</td>
<td>SPM system clear structure and firm specific</td>
</tr>
<tr>
<td>Environment</td>
<td>Industry and business competitiveness, overall performance, long-term short-term focus and government regulations</td>
</tr>
</tbody>
</table>

*Source: Franco and Bourne (2005)*

Other researchers focuses on investigating behavioral factors influencing performance management systems’ use based on. De Waal (2006) argued that goal of a PMS is to steer the behavior of people in the organization towards achieving the results desired by the organization. A PMS should therefore foster performance-driven behavior. The factors that influence this behavior are (De Waal, 2003): structural factors which affect the structure and content of the PMS; behavioral factors which affect the actual use of the PMS by people in the organization; systems related to a PMS such as evaluation and reward systems and cultural factors (both organizational and national). To find out why organizational members do not demonstrate performance-driven behavior, one should look at the factors (structural, behavioral, cultural) that are influencing the PMS. An organization analyses should study these factors to determine in which areas it needs to improve to become more performance-
driven. Basing on 20 behavioral factors mentioned in De Waal’s research, Taco Elzinga et al (2008), they discover a big set of behavior factors, arranged in 3 stage: starting stage, development stage, use stage and arranged them in order of importance.

Many factors influencing the implementation of PMS have been recognized in the literature as mentioned above. However, there are only few researches conducted to test and quantify the influencing level of these factors. The research by Amy Tung et all, 2011 was one among this few. They investigated the association between the use of multidimensional performance, 4 organizational factors and the effectiveness of PMS in Australian manufacturing business units. This opens up a new research direction to study influencing factors to PMS in other industry or other countries.

As proved in the literature, the performance management system cannot be implemented lightly and should not be underestimated. Its takes continuous attention, dedication and in particular stamina from management to keep focusing on performance management in order to keep it ‘alive’ in the organization (Bourne, 2005). If improvement activities in the area of performance management are not accompanied by the fostering of performance driven behavior, which includes managers being a role model by regularly addressing performance management, organizations will have a tough time fulfilling their potential.

5. Research directions on PMS in enterprises in Vietnam

The scientific and professional literature specifically on implementing performance management in developing countries is scarce. The popularity of the PMS framework like balanced scorecard (BSC) is gradually changing this, mainly in Asian countries, but it is still a relatively new concept for developing countries (Abdel Aziz et al., 2005). In Vietnam, according a survey conducted by Vietnam Report in January in 2009, there are 7% of 500 biggest companies in Vietnam are using the BSC and 36% plan to apply. In the context of general enterprise management like in Vietnam, these are impressive figures, providing an option to use a management tools to balance financial indicators in the past and effectiveness in the future.

At the end of the second half of the twentieth century, like many other developing countries, Vietnam has moved over to market-based development. The shift to a market-based economy required modernization of accounting practices and new management control
and information systems, which has several core elements: devolve authority and provide flexibility; develop competition and choice; provide responsive service; be performance oriented; be customer driven; and focus on efficiency. Many companies have also experimented with performance management initiatives but most of these were limited to the introduction of performance-oriented staff appraisal systems. Attempts to use performance targets have produced mixed results.

Research on PMS in Vietnam is limited to case study of specific organizations, such as how to develop a performance measurement system (PMS) in a small, Vietnamese professional service firm (Mirthe van de Belt, 2009), measuring the performance of the banking system in one bank of Vietnam during the time 1990 - 2010, (Dang – Thanh Ngo, 2012), research about features relating to organizational change in terms of organizational culture, leadership style, and trust can impact the success of BSC implementation in one Vietnamese hospital (Luu Trong Tuan, 2012). The finding from these case study need to be confirmed before generalized to other organizations or other industries.

To make a practical contributions to help managers in Vietnam apply PMS successfully, further researches should be conducts to find out the main factors that influence the success and failure of the PMS, the influencing level of each factors, any differences of these influencing factors in different industries. Besides, the method to implement performance measures to manage business performance, how to develop or adjust the measurement systems to adapt with the strategy changes, should also be considered in Vietnam context.

References:


