

Organizational performance management system: exploring the manufacturing sectors

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Abstract

Purpose – *The purpose of this paper is to illustrate the various performance management systems utilized by the manufacturing units.*

Design/methodology/approach – *The paper reviews the performance management literature to extract the factors that would help to explain the effect of performance management system on manufacturing units.*

Findings – *This research revealed important issues and practices of performance management in manufacturing sectors.*

Originality/value – *The paper improves understanding of the different approaches utilized to manage and measure performance management system in the manufacturing sector.*

Keywords *Performance management, Performance measures, Manufacturing sectors, Organizational performance, Performance criteria*

Paper type *Conceptual paper*

Introduction

The success and sustainability of an organisation depends on performance of the organisation and how their objectives are carried out to its effect. Organisations are trying to manage performance of each employee, team and process to ensure that the goals are met in an efficient and effective manner consistently. Effective utilisation of performance management system is critical to enhance organisational performance, so as to achieve a competitive position in global marketplace (Kovacic, 2007; Neely, 2005; Guler *et al.*, 2002; Neill and Rose, 2006 and Franceschini *et al.*, 2010). With rapid introduction of new technologies and changes in the manufacturing sector, the manufacturers are struggling to measure and manage performance across their operations effectively. This need has given rise to the importance of a comprehensive performance management system, which would enable the manufacturers to improve all the facets of their operations and to attain competitive edge in the market. The purpose of this paper is to understand the various performance management system utilized by the manufacturing industries and its relevance to the pertaining changes in the economy.

Performance management system: concept and issues

In late 1970's Dr Aubrey Daniels coined the term performance management, as a science imbedded in application methods for managing both behaviour and results within an organisation. In essence, performance management is a shared process of the day-to-day management of employees based on their agreement of objectives, knowledge, skills and competence requirements. The traditional performance management system was focused on "what gets measured gets done". It was based on cost and accounting management techniques. It was carried out to meet the needs of expanding manufacturing industries

during the 1980's. Lately, enormous changes have taken place in technology and production techniques that have made traditional performance measurement systems obsolete. There has been a shift in focus on "how to manage what is measured". This shift was caused for the need of new performance management system, which would assist in catering to the changing needs of the manufacturing sector. The performance measurement system forms the core of a performance management system which assists in managing the company strategy (Lebas, 1995; Neely, 2005; Otley, 1999).

The steadily increasing maintenance related costs in manufacturing industries is emphasizing the need of a performance management system, in order to utilize the scarce maintenance resources more effectively so as to improve the overall efficiency and effectiveness of an organisation (Komonen, 2002; Eti *et al.*, 2005; Tangen, 2004; Cohen and Kaimenakis, 2007; Tsang *et al.*, 1999). A performance management system is needed which is able to pursue all maintenance efforts made by the organisation, which is synchronized to the organisational strategy. In a survey conducted by Cholasuke *et al.* (2004), on manufacturing organisations, it was found that only one-third of the organisations, with good maintenance management practices tend to realize the full benefits of their maintenance management initiatives. This has led to the utilisation of innovative performance management system such as, balance scorecard, performance benchmarking, etc. instead of the traditional performance management techniques (Rouse and Putterill, 2003; Lunnan and Haugland, 2008; Gomes *et al.*, 2004; Yenyurt, 2003). However, it has been realized that no single performance management system can imbibe all the critical areas of business nor can provide a clear performance target. In order to manage performance effectively, top executives of the organisation need to be aware of information processing tendencies and practices within the organisation to choose a suitable performance management system.

In recent time, organisations are faced with new competitive conditions and need to cope with dynamic environments. These conditions require continuous improvement. Accordingly, the companies are requiring the need of a sustainable performance management system for improvement of organisational effectiveness. However the performance management system has to be carefully considered before implementation as various factors affect the process, such as:

- *Incentives.* Performance measures can sometimes generate inappropriate behavior because of the way they are linked to formal or informal incentive structures. The incentives linked to a certain performance can create pressure to focus on the easily solved problems while ignoring more challenging problems (Bruttel, 2005). This creates a creaming and parking behavior. Therefore, the incentive structures associated with performance measures that is easy to place customers generate more attention (creaming) while more difficult to place customers are effectively ignored (parking).
- *Costs.* According to Bouckaert and Peters (2002), the costs associated with producing performance information are often opaque. The costs associated with performance measurement are often immediate while the benefits of it are realized after a long period of time or sometimes are even uncertain.
- *Feedback is not strategic.* When the feedbacks from the performance management system are concentrated solely on short-term results than on strategy implementation and success, then the success of the system becomes doubtful.

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Performance management measures

A successful performance management system ensures that work performed by employees accomplishes the goals and mission of the organisation and that employees have a clear understanding of what is expected of them. Benefits of a successfully adopted performance management system include an organisation that is directly aligned to its goals and objectives and a motivated workforce where every employee understands his or her importance and role in the organisation. Some of the popular performance management systems utilized by manufacturing industries are:

1. *Balanced scorecard*. The balanced scorecard is a strategic planning and management system that is used extensively for both strategic and operational purposes in business. It is a measurement framework which has integrated the non – financial performance measures to traditional financial systems which gives the executives a balanced wholesome outlook on organisational performance. Previous research has depicted that 60 per cent of the *Fortune* 100 companies in the USA and 88 per cent of Australian and Finnish companies have experience with this. It is found that most of the high performing companies emphasise on innovation and growth perspectives of balanced scorecard (Silk, 1998; Olson and Slater, 2002). In a study conducted by Anderson and Lanen (1999), on Indian firms it was found that information on customer expectations, customer satisfaction, competitor's performance, internal information, on-time delivery, unit product cost and product quality assumed greater significance for strategy formulation through the balanced scorecard procedure. It was found that the traditional financial measures continue to dominate the performance scorecard, though there has been an increase in use of non-financial measures such as on-time delivery, customer satisfaction and productivity in addition to financial measures for performance evaluation in Indian firms (Anderson, 1999; Joshi, 2001).
2. *Performance benchmarking*. Benchmarking is one of the most effective continuous improvement tool for transferring knowledge and innovation into organisations, which determines a positive impact on competitiveness of the business and work processes, as well as represents best practices which establishes rational performance goals (Riberio and Cobral, 2006). Performance benchmarking as a tool for continuous improvement is more prominently adopted among the developed countries than the developing countries (Longbottom, 2000; Jarrar and Zairi, 2001; Yusuff, 2004; Maire *et al.*, 2005). The performance benchmarking in Indian manufacturing sector is a relatively new concept though it has been adopted worldwide as an instrument of continuous improvement. Benchmarking was initially developed by Xerox as a continuous, systematic process of evaluating companies recognised as industry leaders so as to understand the best practices and establish rational performance goals for itself. However it must be acknowledged that benchmarking initiative does not provide the solutions automatically. The organisation needs to find the right measures for comparison so as to analyse the performance gap and to realize some innovative solutions (Carpinetti and Melo, 2002; Rohlfer, 2004; Berrach and Cliville, 2007; Hinton *et al.*, 2000).
3. *TOPP system*. The Terminal Operated Production Programme (TOPP) system is a new performance measurement system which was developed by SINTEF (1992), in Norway in partnership with the Norwegian Institute of Technology, the Norwegian Federation of Engineering Industries and 56 participating enterprises. It is a type of questionnaire that determines the performance of a firm in all the areas of manufacturing. This questionnaire consists of three parts of which; one part obtains information regarding the firm as a whole, second part determines how the enterprise operates and finally the third part focusing on 20 specific areas within the enterprise that may need improvement, such as marketing, design, technological planning, product development, financial management, personnel management, etc. The TOPP system ascertains the performance measurement along three dimensions:
 - Effectiveness – to satisfy customer needs.
 - Efficiency – optimal utilization of enterprise and economic resources.
 - Ability to change – strategically handling changes.

“The rapidly changing business environment engenders difficult challenges in designing and implementing effective performance management systems in organisation.”

The TOPP questionnaire analyses the firm's areas of manufacturing and instigates the firm to consider the areas which earlier was of lower importance. This enables the firm to estimate their likely future status as well as to introduce improvements. It is therefore suitable for making comparisons between enterprises.

- *AMBITE system.* The Advanced Manufacturing Business Implementation Tool for Europe (AMBITE) system is a modern performance management system which can be used to assess impact of strategic decisions made by a firm. This system facilitates in translating the business plan into a set of performance measures which directly relates to the strategy of a firm. The AMBITE performance framework consists of five macro business processes (customer order fulfillment, vendor supply, design, co-ordination, co-engineering and manufacturing) and five macro measures of performance (time, cost, quality, flexibility and the environment). By mapping out these five macro business processes and measures of performance, a set of twenty-five strategic performance indicators for each manufacturing typology is devised. Each performance indicator is different from each other depending on the firm in consideration. As this system is a process oriented and generic framework, therefore, it can be applied to almost any firm irrespective of its size.
- *EFQM model.* The EFQM Excellence Model (European Foundation for Quality Management, 2010) was introduced initially at the beginning of 1992 as the framework for assessing and improving organisations, in order to achieve sustainable advantage. It is a non-prescriptive framework based on nine criteria. Five of these are the enablers while four of them are the results. The enabler criteria covers “what an organisation does” namely; leadership, policy and strategy, people, partnership, and resources and processes. The results criteria covers “what an organisation achieves” namely: customer results, people results, society results and key performance results. It provides an opportunity to the firm to benchmark and compare processes and results with other users and is applicable to all organisations. It facilitates the firm to develop a continuous improvement processes to understand their key strengths and potential gaps in performance as well as to integrate existing and planned initiatives to remove those gaps.

The firms are now committing time and resources for the development of a new performance measurement system to enhance the performance of the firm as well as to increase the motivation and credibility of the entire process. These performance measures highlight the gaps between the best in class and the manufacturing unit's own performance over a period of time which accelerates the continuous organisational learning process.

Emphasis on people: organizational initiatives

The rapidly changing business environment engenders difficult challenges in designing and implementing effective performance management systems in organisation, for the management.

The performance management system needs be integrated with the strategies of the organisation to enable high degree of success. Therefore, several organisational initiatives, which can be ascertained in an organisation to enhance the performance of the employees through a performance management system, such as:

- *Top management.* There should be clear agreement and commitment among the top management on strategy, goals, measures and performance targets to be implemented within the organization.
- *Involvement and participation.* The involvement of all employees towards achieving the established performance parameters is crucial. Involvement of managers and employees in developing and implementing a performance management system enhances trust and ownership of the performance measures. Clearly defined measures of performance would enable the managers to select an adequate performance management system for their organization.
- *Review process.* The managers should be focused on continuous review of the performance management system, so as to determine whether the actions plans to fill the gaps between performance measures and goals are being achieved or not. The focus of performance management system should be on improvement and learning rather than on control.
- *Feedback.* A prompt and formal feedback system must be enabled for successful performance measurement. Efficient communication and feedback system would detect any loopholes within the system and would aid the manager to rectify it.
- *Compensation.* A well defined compensation plan must be introduced for the employees so as to avoid any discrepancy.

Many tools and frameworks have been proposed in the field of performance measurement and management but it is not necessary that all of them would give positive results. Therefore, it is necessary that the managers should select a balanced performance management system as per the requirement of the organization and its employees.

Conclusion

This paper demonstrates the various practices of performance management system in the manufacturing sectors. The literature review of the popular performance management system utilized by the manufacturing sectors depicts that no single system is successful in improving the performance of a firm. The correct match between the firm and performance management system is essential for its success. The performance management system's function has a significant positive impact on performance of the employees when it is implemented successfully. The review also depicted certain issues on implementation of performance management system in the manufacturing units like costs, lack of strategic feedback system and incentive schemes which undermine the efficiency of a performance management system. Improvisation of performance is an ongoing process and the organisation needs to strive to attain optimal level of value, so as to enhance the future potential business. Hence, the process of measuring the manufacturing performance management system needs frequent reviewing and monitoring to combat an increasingly competitive globalised business environment.

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