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A Model for Stakeholder-Oriented Benchmarking Process

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Abstract: Despite the strategic orientation of most benchmarking processes in the past researches, this study provides a new approach to benchmarking in accordance with nowadays stakeholder-oriented business climate which stresses on performance improvements that benefit all stakeholder groups. So the purpose of this study is to propose a benchmarking process model addressing the key role of stakeholders in managing and measuring organization's performance. This model presents a stakeholder-oriented view to performance improvement through benchmarking tool using value based concepts. Based on reviewing the literature, an exploratory approach is used to design the process model of benchmarking and it is supported and tested through a case application in an Iranian business school. The presented model which includes 10 steps was successfully implemented in improving the value drivers of selected case. Hence it seems that the model can be of use to various industries and businesses to improve their value creation capabilities. On this basis, future researches should be focused on more case studies from various industries and businesses and more perfect realization of stakeholder orientation claims of suggested approach.

Key words: Benchmarking, stakeholder, value mapping, Iran

INTRODUCTION

Some incidents as they occurred at Enron, WorldCom, Disney and Xerox, have forced managers to rethink their values and to consider the expectations of their stakeholders. In fact, companies operate in a socio-economic environment that functions more effectively when key stakeholders are included in business practices and decision making (Sachs and Rühli, 2005; Emiliani, 2001). These rapid changes in the environment and hence in organizations has led to some changes in business benchmarking and performance measurement (Anderson and McAdam, 2005).

Emerging second generation performance measurement solutions is one of these changes which are based on the philosophy of stakeholder orientation and value creation (Green and Jack, 2004; Jack, 2002; Neely *et al*., 2001). Regarding the conceptual interrelation between performance measurement and benchmarking (Zairi and Leonard, 1994; Elmuti and Kathawala, 1997; Kouzmin *et al*., 1999; Sarkis, 2001), this spirit of stakeholder orientation can affect common benchmarking processes. Applying the new generations of performance measurement solutions concepts, benchmarking processes can be transformed to a new generation. In this way, benchmarking as a tool for building strong capabilities, ensuring an inward flow of ideas and establishing true competitive gaps (Jarrar and Zairi, 2001), can help organizations to be more responsive to all of their stakeholders.

In this study, using of non-common performance measurement frameworks is examined to shift the viewpoint of benchmarking process to a stakeholder-oriented one. For this aim, some common benchmarking process models are reviewed. Then the stakeholder-oriented approach is focused and also the value mapping a second-generation performance management solution-as a basis for designing the suggested model of benchmarking process, is discussed. Proposing stakeholder-oriented model for benchmarking is discussed. Finally, application the proposed model to a case from Iran's higher education sector is presented.

REVIEW OF BENCHMARKING PROCESS MODELS

In order to utilize and achieve benchmarking benefits, most of authors have suggested various models of the benchmarking process which are included different steps to be followed and these steps are often provided for in a model (Magd and Curry, 2003; Elmuti and Kathawala, 1997). In fact, the process of benchmarking involves focusing on the issue of how learning can be made and incorporated in a systematic way into the organization (Ahmed and Rafiq, 1998).

The most publicized benchmarking process is due to Camp (1989) and was developed and applied at Xerox Corporation (Fig. 1). Also, some models are described and compared by Zairi and Leonard (1994). Fourteen benchmarking procedures are considered in their

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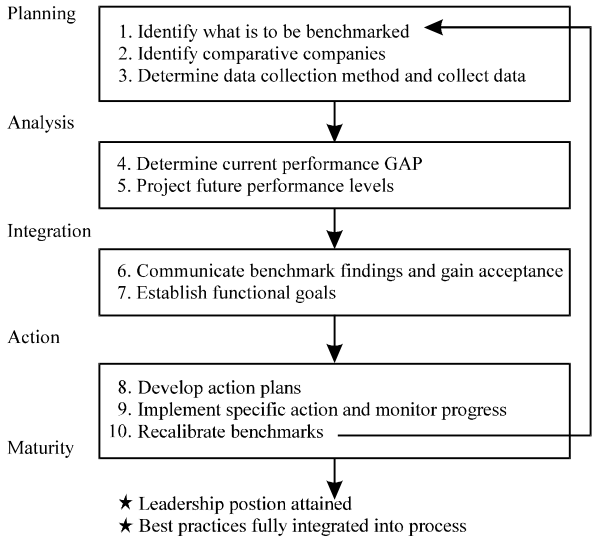

Fig. 1: Xerox's benchmarking process steps source: Camp (1989)

comparative exercise and finally they suggest that there are many similarities between them (Zairi and Leonard, 1994). However, according to some main benchmarking processes which are investigated by Zairi and Leonard (1994), Elmuti and Kathawala (1997), Ahmad and Rafiq (1998), Magd and Curry (2003) and Kyrö (2004), we can distinguish three main phases in each benchmarking process: Planning, Analysis and Change.

Planning phase is the most important set of actions in a benchmarking process. Regarding most of considered benchmarking processes, identifying benchmarking study subject (What to benchmark?), specifying measures and also selecting benchmarking partners are the critical tasks which are done in this phase (Cassell *et al*., 2001; Magd and Curry, 2003). Among these tasks, defining the object of study of a benchmarking initiative (What to benchmark?) is a first and fundamental step (Carpinetti and de Melo, 2002). This can be found through investigation of some benchmarking processes like Xerox pioneering ten-step benchmarking process, Kaiser Associates, Inc. seven-step process, Spendolini five-step process, IBM five-phase/fourteen-step process, Alcoa's six-step benchmarking and many other classifications, that while these approaches are organized differently, they all share a crucial stage at the beginning: determining which function to benchmark (Partovi, 1994).

Although the question of determining what to benchmark is less focused by researchers in the benchmarking literature rather than other components of benchmarking process, some studies as well as benchmarking processes are focused on this issue like Partovi (1994), Büyüközkan and Maire (1998) and Carpinetti and de Melo (2002).

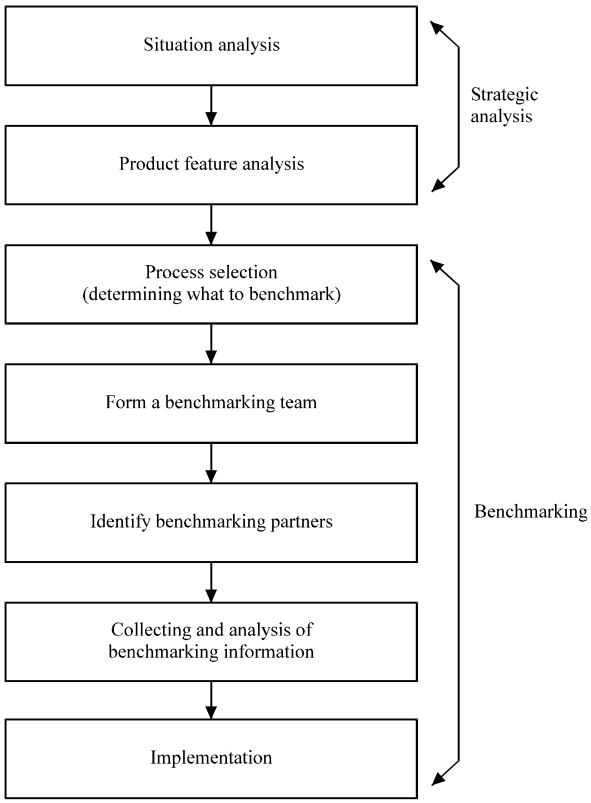

Fig. 2: Stages of strategic benchmarking source: Partovi (1994)

Partovi (1994) suggests using of the Analytic Hierarchy Process (AHP) which relates customers` desires for specific product features to the selection of value chain processes for benchmarking. In this way, he addresses the strategic benchmarking process as the basis of his proposed model (Fig. 2). The main contribution is occurred in the process selection (determining what to benchmark) stage which process selection is directed at the detailed evaluation of various important activities within the firm to reach a higher level of competitive advantages and also customer satisfaction. Partovi (1994) tries to use a more quantitative approach to find the critical activities which are important for strategic goals as well as customers' value creation aims but not all of stakeholders.

Büyüközkan and Maire (1998) propose the use of Principal Component Analysis (PCA) and Common Factor Analysis (CFA) as tools for determining the objects of benchmarking study. Their study is based on a benchmarking process which is divided into 15 steps regrouped in five phases (Fig. 3). The first phase which is named Self-analysis is devoted to measure and analyze

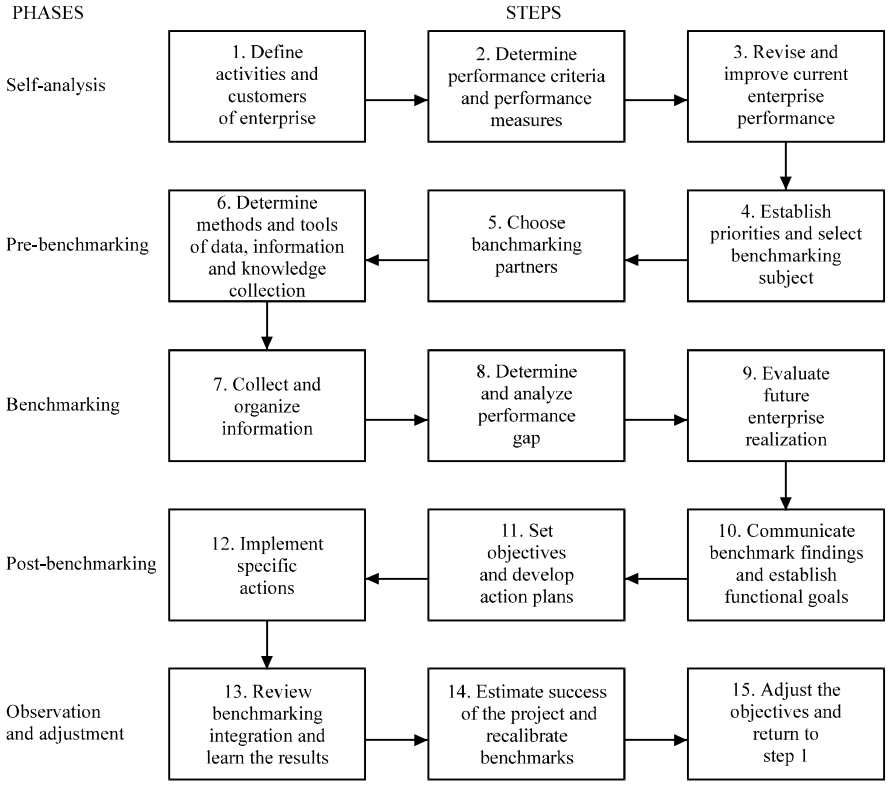

Fig. 3: The steps of the benchmarking process source: Büyüközkan and Maire (1998)

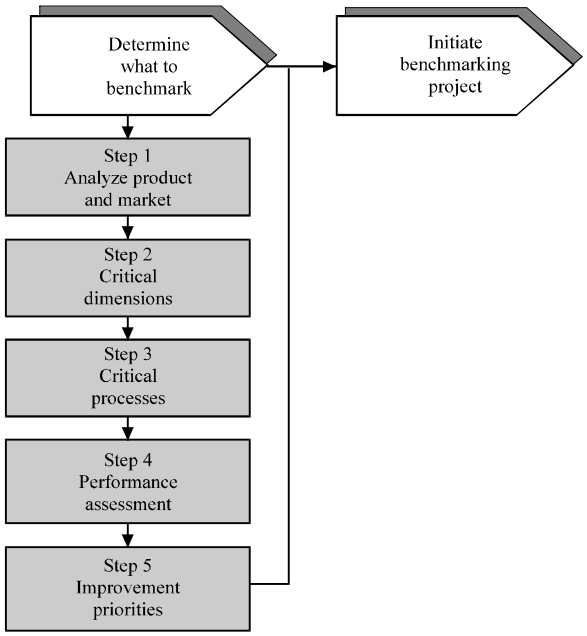

Fig. 4: Steps for defining the object of study of benchmarking source: Carpinetti and de Melo (2002)

the internal performance of the enterprise to identify its strong and weak points. A diagnosis tool called Olympios Audit is used for this aim which provides raw data for next steps.

The important point in latter benchmarking process is reliance on performance measurement and a specific performance audit tool for identifying benchmarking priorities is used. But the focus point in this process is still only customers and a customer-supplier approach is used for evaluating the enterprise performance.

Carpinetti and de Melo (2002) stress on the using a qualitative method of analysis in the path of deploying product and process improvement needs into benchmarking projects. The approach presented in their study is concerned with identifying dimensions of performance of product and operations, as well as mapping business processes involved in delivering value to customers. Their suggestion includes a sequence of steps for defining what to benchmark (Fig. 4) which is followed by a set of typical benchmarking project steps.

As a conclusion, two points can be stressed, first, except Büyüközkan and Maire's benchmarking process, other benchmarking processes have not addressed a

specific performance measurement framework for identifying as is level of performance and hence specifying improvement needs (benchmarking targets); while according to some researchers like Zairi and Leonard (1994), Elmuti and Kathawala (1997), Kouzmin *et al*. (1999) and Sarkis (2001), performance measurement is a critical concept in a benchmarking process which significantly help us to know the answer of What to benchmark?. In fact, although the Longbottom (2000) study shows, determining what to benchmark is largely ad hoc in practice and Carpinetti and de Melo (2002) have stated that there is generally no clear procedure for identifying improvement needs, but exploiting structured performance measurement frameworks during the benchmarking process can form a more organized procedure to determine what to benchmark.

Second, it seems that the necessity of responsiveness of enterprise to all of its stakeholders is neglected in most of investigated benchmarking processes and only customer needs as a member of stakeholders group are addressed in these benchmarking processes. This can be a major mistake in nowadays organizational environment which is stakeholder oriented than ever. We need to rethink the purpose of the firm as being a social institution that needs to create value for stakeholders (Moir *et al*., 2007) and benchmarking should be employed as a tool to boost value-creation functionality of processes and assets.

STAKEHOLDER-ORIENTED APPROACH TO BENCHMARKING

The stakeholder-orientation approach to benchmarking can be formed through considering the link between benchmarking and performance measurement (Fig. 5). Although benchmarking is not measurement itself but a process of establishing gaps in performance and setting objectives and developing plans to close identified gaps (Zairi and Leonard, 1994). On the other hand, performance assessment is one of major steps in determining what to benchmark, so performance measurement and metrics is a critical element in a benchmarking project in order to know where the company stands today and where it will be tomorrow (Elmuti and Kathawala, 1997; Sarkis, 2001). Therefore one major issue is the need to decide on suitable indicators to be used in the benchmarking process (Kouzmin *et al*., 1999).

Evolutions in performance measurement field form mere financial to multidimensional indicators and measures have lead to developing new performance measurement frameworks like BSC and EFQM in 80 and 90 decades. While these various frameworks have been created or adapted to help deal with the problem of deciding what performance measures to select for use within organizations (Neely *et al*., 2001) they have evolved from different backgrounds and perspectives and this has influenced the structure and focus of each framework. In fact, each of these approaches has helped

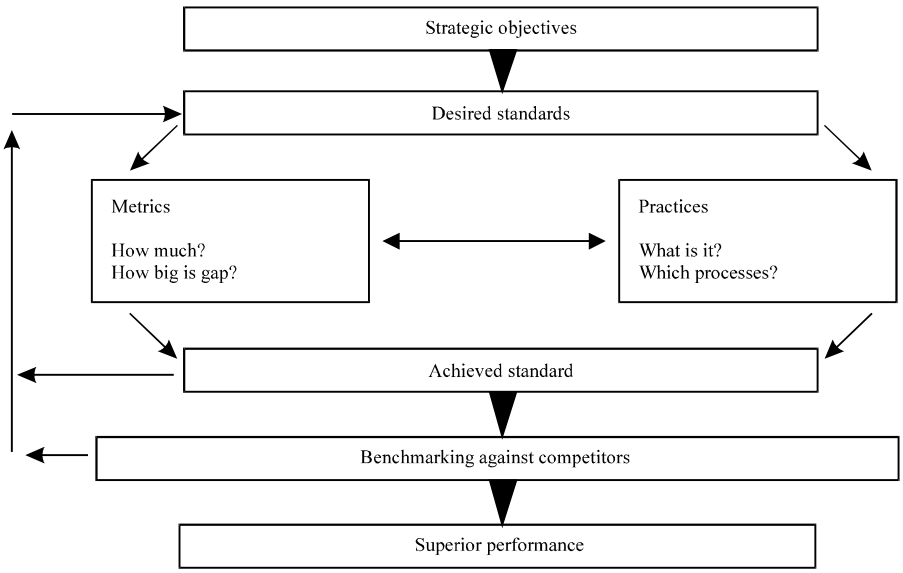

Fig. 5: The link between benchmarking and performance measurement source: Zairi and Leonard (1994)

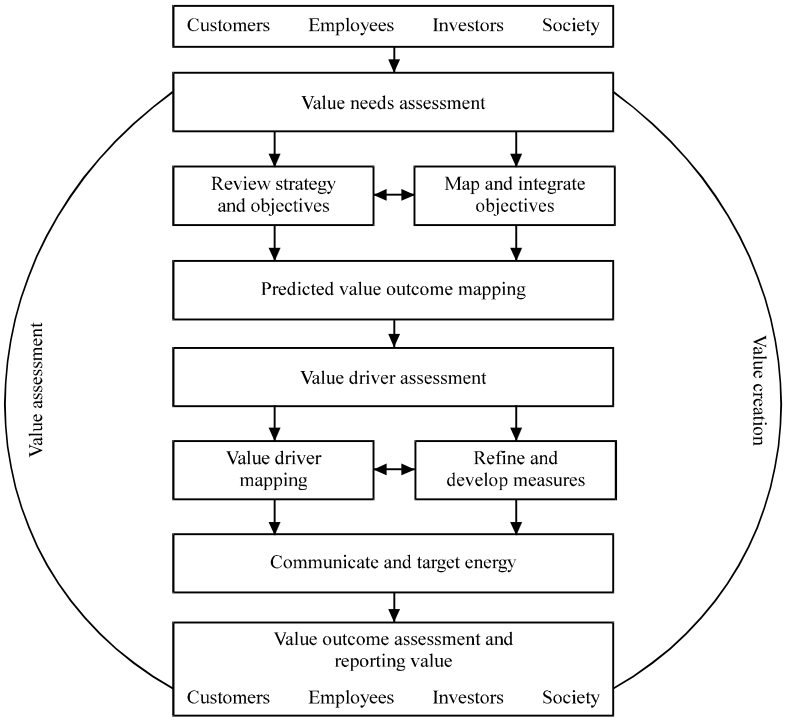

Fig. 6: Value mapping solution source: Green and Jack (2004)

to focus the minds of managers on broader performance measures for their organization (Jack, 2002; Pilcher and Jack, 2006) and on this basis, some researchers have examined these approaches' role in benchmarking for self-assessment purposes and identifying improvement needs, as well (Ahmed and Rafiq, 1998).

But in recent years, some problems in realizing the potential of first generation measurement frameworks (e.g., EFQM and BSC) to address the needs of all stakeholders and also learning from their application in organizational settings, has lead to the development of second generation performance measurement frameworks. One of the problems with approaches like EFQM Excellence Model and BSC is that they direct managers of the organization to develop strategies around the limited perspectives of the respective approach i.e. the four perspectives of the scorecard and the nine criteria of the EFQM model. But one of the lessons in nowadays organizational climate is that strategy must adapt to ever changing requirements (Jack, 2002). Also, first generation approaches are still focusing on outputs rather than using the language of outcomes which is a dangerous point that can lead to significant stakeholder dissatisfaction (Pilcher and Jack, 2006). As a counterpart, second generation performance measurement approaches like Performance Prism and Value Mapping can help us to have a comprehensive stakeholder orientation and focus on broader stakeholder needs as an important step forward to move thinking away from the traditional approach that measures should be derived from strategy. This idea directs us to view stakeholder needs as the fundamental perspective on performance (Neely *et al*., 2001; Jack, 2002; Green and Jack, 2004). This point can help us to form a new approach to benchmarking as well. Using the second generation performance measurement approaches like Value Mapping and its related concepts, a new perspective of organization`s performance which is based on stakeholder needs can be developed in the field of benchmarking. Thus whole of the benchmarking process can be established on a stakeholder-oriented viewpoint which enables us to view own and our benchmarks' performance in view of stakeholders, their needs and values which should deliver to them.

Value mapping solution as a basis for designing present proposed model, integrates the continuous improvement and performance measurement concepts hence helps organization to focus on activities and assets which are of highest utility in satisfying stakeholder and organization needs (Green and Jack, 2004). This approach which is developed in the UK helps organizations to manage the value drivers that impact on achieving desired outcomes (Pilcher and Jack, 2006). The four building components of this approach are (Green and Jack, 2004; Jack, 2002):

- **Value needs**: the highest-utility needs of the stakeholder groups
- **Value drivers:** the tangibles and intangibles relating to activities and assets of the organization those create value
- **Value outcomes:** the measurable outcomes of value creation and can be both intangible and tangible
- **Value maps:** visual representations of the value drivers and value outcomes, including links to performance measures, strategic objectives and stakeholder needs

The relations between stakeholder needs, strategic objectives, value outcomes and value drivers are shown in Fig. 6.

PROPOSED MODEL

The review of some major benchmarking processes and improvement opportunities that were addressed along with considering second generation performance measurement frameworks like Value Mapping as a new viewpoint to organizational performance, led to theoretical development of a stakeholder-oriented process model for benchmarking in the end of year, 2007. The model is designed with a focus on enterprise`s stakeholders and is based on some extracted concepts from Value Mapping approach as a performance management solution. These concepts are used specifically in the planning phase of the benchmarking process as a performance measurement body to define suitable measures and therefore for determining what to benchmark. This model is shown in Fig. 7 and its steps are described as follows:

Identify stakeholders: Regarding the stakeholder-oriented nature of proposed benchmarking process, it starts with identifying stakeholders of specific organizational scope which is aimed to boost its performance through benchmarking. This identification can be matured through an iteration mechanism. So, in each iteration of benchmarking process more and more stakeholder groups can be addressed hence going through the way of satisfying more and more needs to reach higher levels of performance based on a continuous improvement manner.

Assess value needs: In this step, needs of pre-identified stakeholder groups will be assessed. These needs can be known through some tools like interview (with sample groups of stakeholders) or questionnaire and etc. However, the important point in this step is that stated needs should present the stakeholders' clear need for a worthy and useful service or product.

Identify value drivers: When stakeholders' needs are known, the organization then has to identify the value drivers that have greatest utility in satisfying these needs.

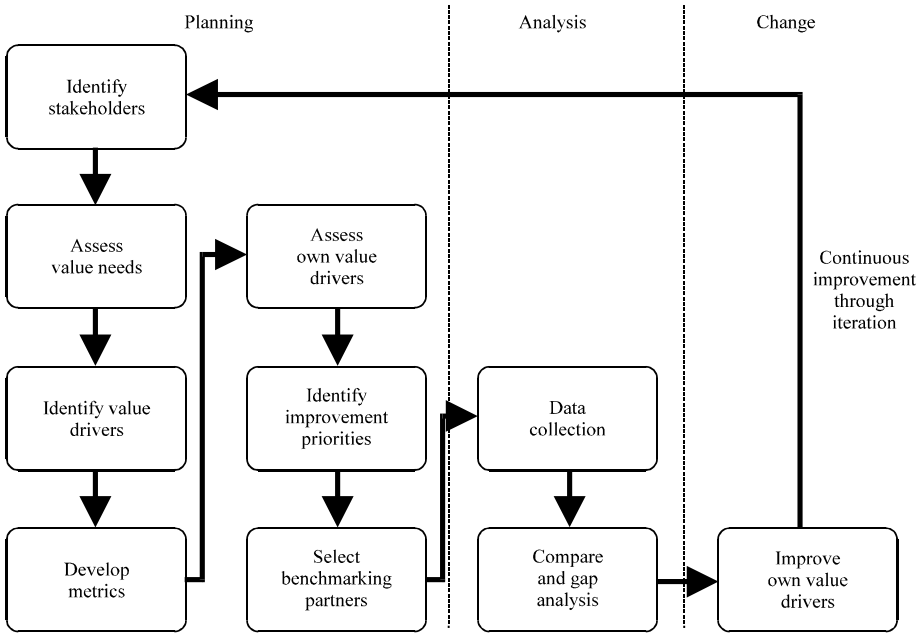

Fig. 7: Stakeholder-oriented benchmarking process model

Develop metrics: For a realistic self-assessment suitable metrics are necessary. In this step, performance variables will be developed for evaluating identified value drivers. These metrics should be tailored to outcomes assessment rather than outputs and this can be achieved through embedded iteration mechanism in the benchmarking process. So, while in primary iterations outputs can be addressed but as our understanding of stakeholder needs get matured, the focus will be on outcomes.

Assess own value drivers: One of the main tasks to determine what to benchmark is done in this step. Based on developed metrics, a self-assessment action is conducted focusing on processes and assets which have greatest utility in value creation. As a result, own value drivers can be evaluated in comparison with value needs which were stated by stakeholders and then specify their value-creation condition.

Identify improvement priorities: Through assessing own value drivers, barriers and difficulties in the pass of meeting stakeholders' needs become clear, so we can find out improvement needs in our organizational setting based on a stakeholder-centric thinking.

Select benchmarking partners: Benchmarking partners may include other departments of own organization, competitors in the same or different geographical markets and companies in related or unrelated industries, in the same or different countries. Choosing benchmarking partners can be dependent on similarities between own and theirs in terms of respected stakeholder groups and relations with them or value drivers which are utilized.

Data collection: Data collection in this step means assessing benchmarking partners' performance considering identified improvement priorities. So, data will be gathered through measuring their performance based on pre-developed metrics and by different tools such as observation, interview, questionnaire or search in the internet.

Compare and gap analysis: By making comparisons, the gaps can be cleared and some good lessons can be learned. Analyzing the gaps show that why others can employ specific value drivers more efficiently than us and how they can do this.

Improve own value drivers: Employing lessons learned from earlier step can help to improve our weak value drivers. This improvement can be realized through a set of actions which may comprises of setting objectives, developing action plans, implementing actions and monitoring.

RESEARCH METHOD

This research is structured based on proposing a process model for benchmarking and then testing through implementing whether the presented solution brings the expected advantages. In fact, given the exploratory approach of present research to design a benchmarking process model, it is required to perform at least one case study to support the theoretical design. It is therefore a research cycle in which theory development should be tested in an organizational setting and in turn it helps further theory adjustments.

Thus, after conceptual formalization in earlier section, the next step was concerned with developing case of application of the proposed steps.

CASE APPLICATION

The proposed model was applied in one of top Iranian business schools during the first months of year 2008. This decision is justified because of ever-expanding commercialization of higher education which leads to a need for applying the concepts of business process improvement to colleges and universities (Comm and Mathaisel, 2005). On the other hand, higher education institutes and business schools specially, must be very responsible to their stakeholders including students, scientific society, industries, businesses and all of people. The selected business school as the oldest business school in Iran is a public institute with more than 1900 students at all levels and more than 50 teachers in several education and research fields. It seems that the business school faces with a range of problems in some areas which have affected its performance and have decreased its perceived rank among competitor business schools. These problems have motivated school's authorities to find causes and develop some plans to improve the situation of the school. For this aim, the proposed benchmarking process model was employed and its steps were implemented sequentially as mentioned in the following:

Identify stakeholders: As stated before, higher education institutes have a range of stakeholders from students and teachers to industries and society and even the administrative personnel. All of this stakeholder groups must be addressed by a comprehensive performance improvement initiative. But due to some time and cost constraints in this case study, in the first iteration of the

benchmarking process; students as one of the major stakeholder groups of the business school were identified and selected. It is clear that in next iterations further stakeholder groups could be addressed and the stakeholder orientation claim of proposed model would be realized widely.

Assess value needs: Assessing the real needs of students of the business school was conducted through interview with sample groups of them. The results demonstrate that the real value needs of students are some issues like:

- Convenient student-centric campus
- Up-to-date and dynamic conditions and facilities for learning
- Real world approach to education
- Open and non-discriminative environment for research
- Non-biased atmosphere for cultural and social activities

Identify value drivers: Based on assessed value needs, four main value drivers in organization of the business school were identified which have greatest utility in satisfying students, they are:

- Facilities
- Education system
- Research system
- Cultural and social system

Develop metrics: In the first iteration of benchmarking process, most of metrics were focused on outputs. Some of these measures were quantity based and some other were quality based which covered various aspects of pre-identified value drivers.

Assess own value drivers: By conducting a self-assessment, the situation of pre-identified value drivers has been revealed. Questionnaire and check list were used for data gathering. The 119 usable questionnaires with the five-point Likert scale were collected for analysing. This assessment has helped us to evaluate the role of each value driver in satisfying students' needs. According to some criteria like convenient campus environment, suitable sport and recreation facilities and rate of number of students to number of PC's, the condition of facilities value driver was moderately good. But about three main systems: Education, Research and Cultural and social, the school faces some problems which are reflected in variables like: number of scientific lectures and conferences which were held, number of presented research study, number of presented courses and majors and the level of interaction with industries and other higher education institutes.

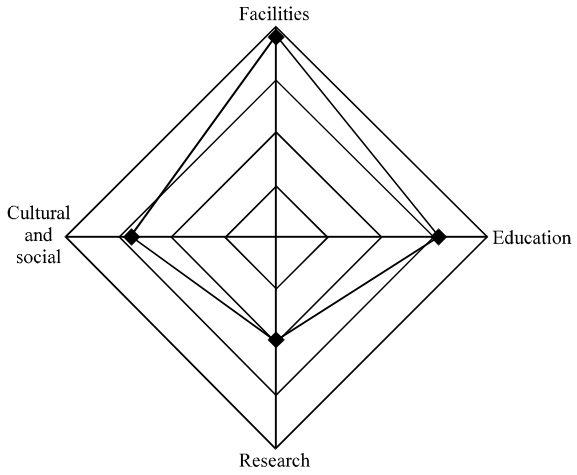

Fig. 8: Status of value drivers

Identify improvement priorities: According to scores of each metric, the overall score of each value driver could be calculated. In this way, the identified difference between Facilities value driver and other three main systems (Fig. 8) has justified us to select these systems as main areas for improvement (benchmarking subjects).

Select benchmarking partners: In this case, main comparisons were made with direct competitors who consist of five business schools. Although all of processes and functions of these competitors were not superior but some good practices could be found in these benchmarking partners that would help to improve the value drivers of the business school and to catch up competitors' performance. Moreover, since one of the important aims of benchmarking projects is to set higher standards and goals, top 10 world class business schools were considered as best in industry benchmarking partners. Benchmarking against these partners significantly help to add new perspectives to the business school's activities and processes and define new kind of relationships with all of stakeholders.

Data collection: Most time consuming step of this case study was conducted through multiple data gathering tools. Internal benchmarking partners were assessed in terms of three major systems through questionnaires and check lists, that at last 275 usable questionnaires were collected. Also, data about world's top business schools was gathered through browsing and studying about 500 web pages and documents on the internet.

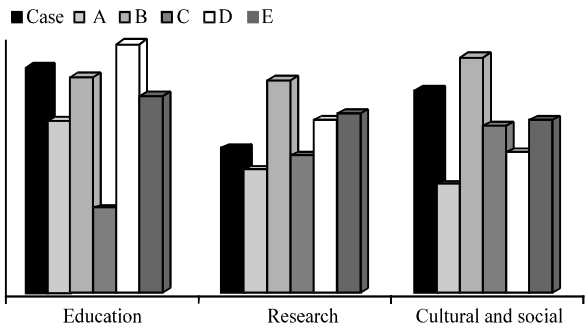

Fig. 9: Comparison with competitors

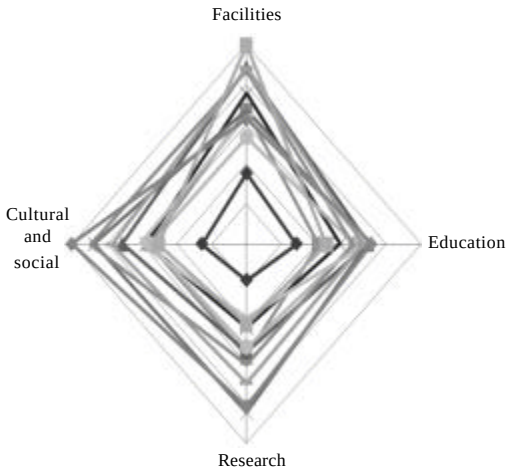

Fig. 10: Comparison with world's top business schools

Compare and gap analysis: Since two groups of benchmarking partners were selected in this case; comparisons and gap analysis were made in following two sub steps:

- **Against direct competitors:** As discussed earlier, comparisons with competitors help to refine and improve current operational performance and may lead to superiority over them in the market. According to Fig. 9, the business school has got the second position after D in Education value driver. One important reason of superiority of D over other business schools is its serious focus on master and doctoral educational programs. But in Research value driver, B is in the first position and the case's business school has not been able to get a better position than fourth. B is in the top because of providing a better research environment by using a large number of qualified teachers and scholars along with publishing several scientific journals. Taking into account the number and variety of student clubs in B, it has got first rank in cultural and social system and the business school is in the second position. This element is most important one in the Cultural and social value driver which has significant impact on students' extracurricular activities
- **Against world's top business schools:** Although, data gathering through the internet has some shortages and collecting the quantity or quality of some measures was impossible in this benchmarking project, but anyway, results of this study have shown big gaps clearly (Fig. 10). Significant gaps can be seen even in Facilities value driver (which has not identified as an improvement need, previously) and this has led to closest placement of business school's points to the centre of the chart. Generally, top business schools' kind of viewpoint for satisfying students' needs, can be benchmarked. In a closer view, high level of provided facilities, quantity and content of diverse educational majors, number of presented scientific papers, high level of interaction with international universities and businesses and many student organizations and communities, are some of value creation capabilities which can be set as a high standard for the business school's performance

Improve own value drivers: Regarding the identified gaps against two groups of benchmarking partners, improvement projects have been launched. Based on lessons learned from world's top business schools, desired standards for all of four main value drivers have been set. Also using competitors analysis, short-term improvement goals and plans has been developed in align with standards. Acting upon these goals and plans, have resulted some considerable improvements in the business school's value drivers. Improved quality of school's sport yards, restaurant and cafe; increased number of PC's; developed IT infrastructure (e.g., providing wireless connectivity to internet across the campus) and empowered student communities (e.g., scientific community of students) are some of these improvements.

CONCLUSION

Considering ever changing expectations of stakeholders, improvement tools such as benchmarking must be adapted to this condition. While strategic issues and customer needs has been the focus of most benchmarking processes, stakeholder orientation can be a way to rethink performance improvement initiatives and to consider stakeholder needs during benchmarking the best practices and processes from superior partners.

In this study, the stakeholder-oriented viewpoint of second generation performance management solutions has been exploited. Concepts like value need, value driver and value outcome have helped us to form a new perspective to benchmarking which views organization's performance more realistically and considers creating value outcomes for all of stakeholders instead of only making outputs for customers, as the main criteria of excellence. Taking into account the literature about benchmarking process models, we have proposed a model, which comprises 10 steps with the aim of improving process and assets, which have key role in value creation for stakeholders. Since the value is a very abstract concept, the complete understanding and perfect usage of the model can be achieved through several iterations.

The case application of proposed model as another outcome of this study, have resulted in substantial improvements in selected Iranian business school. These improvements can be continued through monitoring current actions in the way of reaching high level standards and also iterating the benchmarking process to cover a wider range of stakeholders and their needs. Moreover, this case study has shown that the proposed benchmarking model has some good potential to employ in higher education.

On the other hand, present study was limited in that it was based on only one case application and only first iteration of proposed model has been accomplished. Consequently, applying the proposed model in several cases with multiple iterations should be planned in future research attempts. Also, more investigation of second generation performance management frameworks and scrutiny of stakeholder orientation literature would be useful for improving the theoretical foundations of proposed model and can be addressed as a major research opportunity in the future.

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