

ORIGINAL ARTICLE

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TITLE

**The Application of Balanced Scorecard in Higher Educational
Institutions: A Critical Review**

ABSTRACT

This paper aims to contribute to the application of Balanced Scorecard for a university which presents as a strategic framework for measuring the university's institutional performance. Over the years changes in the organizational structure of educational institutions has obligated them to adopt various approaches to improve their performance. And thus, this paper aims to introduce a Balanced Scorecard approach for a university, where an integrated performance evaluation system is applied to business management of the institution. This integrated system employs a strategy map from Balanced Scorecard which defines the financial targets, customer needs, internal processes and opportunities for improvement. The system will take into account the tool to map the institution's processes, activities and performances in order to achieve the strategic goals and objectives of a university. A preliminary framework is presented here, which was explored and built using the performance based management concept of Balanced Scorecard to focus on key performance metrics. BSC as a strategic management tool has the ability to eliminate limitations that emerge with the implementation of traditional performance measures when evaluating the current status of an educational institution and as well as aids stakeholders in verifying and evaluating business and resource performance.

Keywords: Management Accounting, Balanced Scorecard, Higher Education,

INTRODUCTION

A rapid change in the businesses environment has encouraged many companies in using new management accounting innovation such as TQM, JIT, ABC and BSC. Several advantages emerge from these innovations, however its implementation rate around the world is still low (AL-Kasasbeh, 2018; Faudziah & Rababah, 2012; Fadzil & Rababah, 2011; Rabab'ah, 2013;2014; Hasan, 2017). Balanced Scorecard (BSC) developed in the 1990s by Robert S. Kaplan and David P. Norton, the Balanced Scorecard was published in the Harvard Business Review in 1992. BSC has enabled organizations to translate their vision and strategy into action and effective implementation s can be seen in both the private and public sectors. Regarded as a strategic planning and management system tool and extensively used by organizations (www.balancedscorecard.org, n.d.), the balanced scorecard can be viewed as a strategic methodology that used in the evaluation of performance and attaching the results obtained with the organization's strategy. The balanced scorecard can be further considered more exclusive than other performance approaches that are constrained to this sort of alignment (Lawrie & Cobbold, 2004).

Over the years successful implementations of BSC are beginning to rise where studies conducted have suggested the Balanced Scorecard is of great benefit to both these organization types. Liberalization in the educational market resulting from rapid expansion in university education has significantly changed the educational sector. Creation of markets where healthy competition exists, contributes to the improvement in the standard of performance as these educational institutions compete to survive.

Universities are now faced with greater pressure to be more responsive to the external environment and thus there is a need to examine their operations from a business-like perspective which requires performance indicators such as empirical evidence of their value-to state, alumni, prospective students and other external stake holders (Stewart, A.C. & Carpenter-Hubin, J. 2001).

The establishment of a set of performance management tools contributes to educational objectives and standards and also in the increase in the competitiveness of higher education in a globalized environment. There is also the need for the search for intricate management techniques not only for measuring the performance of the organizations but also those with practical management standards that enhance the prevailing academic system. this paper attempts to assess the framework of an effective performance evaluation system for the educational institution X University, using the Balanced Scorecard (BSC) which when implemented can be used to observe the progress in the performance and enable to adapt to emerging challenges that occur as a result of implementation of key strategies in the institution.

LITERATURE REVIEW

The Balanced Scorecard (BSC) is a strategic planning tool which was developed by Kaplan and Norton (1996), which is based on a four dimensional framework, where each dimension represents a different set of stakeholders: Learning and Growth, Internal Business Processes, Customers, and Finance (Kaplan & Norton, 1996). The balanced scorecard brings together the financial and non-financial measures. The evaluation of financial measures previously taken into account revealed only past performances which gave little insight into the non-financial measures that contribute significantly to the organizational performance.

Kaplan and Norton (1992) have reported in their study that only finance-based measures are too historical; lack predictive power; unable to reflect contemporary value-creating actions; are focused on inputs and not outputs; do not improve customer satisfaction, quality, cycle time, and employee motivation and give misleading signals for continuous improvement and innovation. Ruben (1999) also agrees to this in his study that accounting-based measures are impotent to completely capture various key aspects of an organization such as the environmental competitiveness, market growth and success, research and development productivity and certain other important company factors. And thus, the existence of both the financial and non-financial factors in the balanced scorecard combines both measures in a balanced way.

These four perspectives provide managers with a comprehensive view of an intricate organization, which allows them to see the interactions and interdependencies among the elements and how they contribute to the whole. The framework provides a link with intangible assets to value creating processes on financial, customer, internal process and learning and growth perspectives. According to Kaplan and Norton (1996), the BSC is based on the grounds that a skilled workforce

improves process quality and cycle time, which thus leads to on-time delivery and customer loyalty. The end results are that the organization is very likely to achieve higher returns on investments which results in shareholder satisfaction (Kaplan & Norton, 1996). And thus particularly, the BSC is a performance management framework which mainly contributes to enlarge the number of interested parties and actors within the process. The BSC is a useful tool which can be used to elucidate strategies, identify the key internal processes that drive strategic success and align investments which can improve the business performance.

Over the years various changes have been established into the physical design, application and the design processes that are used to implement the BSC, which has resulted in the enhancement of the effectiveness of the balanced scorecard as a strategic management tool (Kaplan & Norton, 2001). Despite the changes the intended purpose of BSC is aimed at providing the success elements for managers and the alignment of the performance with the overall strategy of the organization. Kaplan and Norton claim that BSC could result in an organization leading tool for accomplishment in future competitiveness for the managers. In short, Kaplan and Norton (1996, 2001) developed the BSC to exploit the multiple benefits that arise from the implementation of BSC in an organization which eventually aids organizations in implementing their strategies.

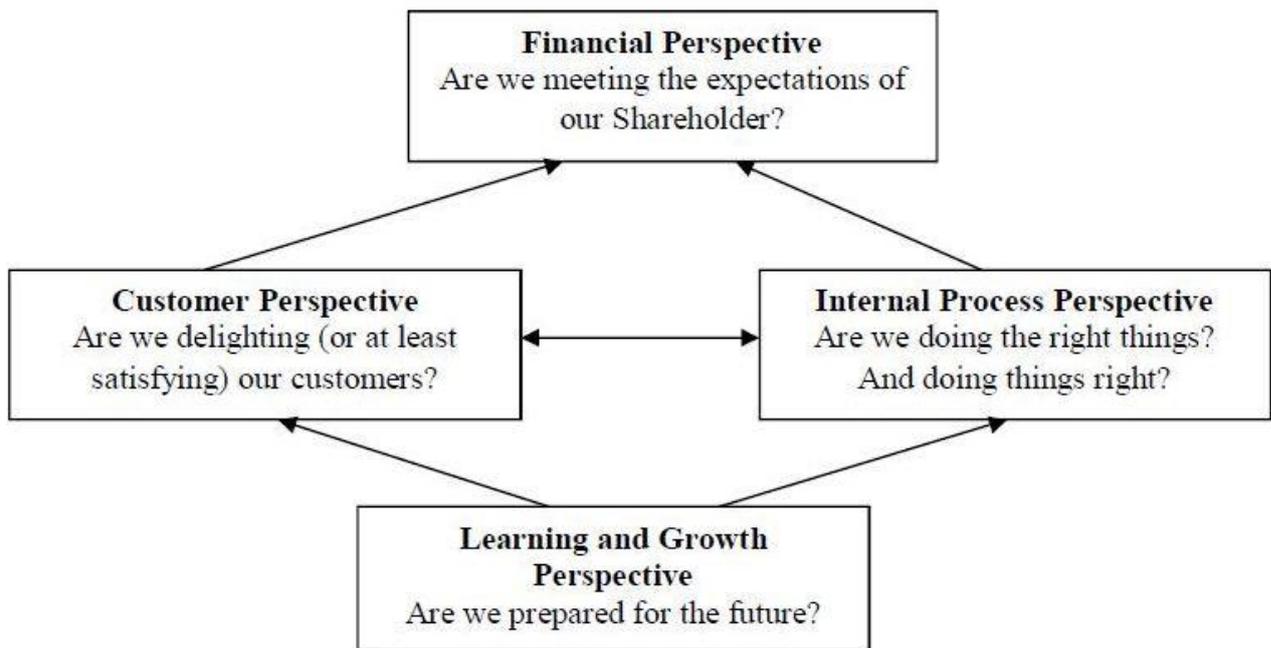
The concept is intended to offer a comprehensive view of the organization which enables focus on critical areas of the organization and as a result drive the organizational strategies forward. BSC surpasses the limitations that occur from the traditional performance measures which considered significant emphasis on only the financial perspectives of an organization and thus this served as a purpose for Kaplan and Norton (1992) to come up with the concept of BSC.

As stated earlier that the primary purpose of the BSC is encouraging efficient strategic management and evaluating the effective transformation of an organizational vision into measurable activities, Kaplan and Norton (1996, 2001) claim that its components must assess those activities which assist in strategy implementation. McNair et al. (1990) strategic measurement system framework similarly highlights that the measures must have a strategic focus. Likewise, Nanni et al.'s (1992) and Asiedu (2015) agrees to this idea that there is a need for the integrated performance measurement system in which strategy drives the selection of measures and that this tool is used to define and monitor performance value which involves customer value performance, internal business performance and employee performance. And thus, it is stressed that a balance is needed between these four perspectives which can together eliminate situations in that could

potentially occur when managing the long term strategy. The balance aids in simplifying the complexities that emerge in the management and decision processes through the prioritization of objectives and initiatives and the promotion of internal learning that connect the strategy and organizational actions (Oteo, Pérez & Silva, 2002).

The four perspectives of the Balanced Scorecard developed by Kaplan and Norton are graphically presented below:

Figure 1. Four perspectives of BSC



Source: Kaplan and Norton (1996)

The scorecard consists of four major elements which are:

1. **Financial perspective:** The BSC understands the traditional importance for the financial perspective and values the imperatives for timely and precise funding data. this element is used to track the financial requirement and accomplishment in organization and focuses on past performance related to profit, return on investment, sales growth and cash flow (Kaplan and Norton 1996). Considered as the most important perspective among the others particularly in relation to key strategy implementation and assessment of organizations’ performances. As stated by Ronchetti (2006) the financial perspective defines financial strategic objectives and financial performance measures, which show whether the company’s financial strategy is yielding increased profitability and decreased costs. According to *Kaplan and Norton (1996) & Lawrie and Cobbold, (2004)* it is typically related to profit, return on investment and paying dividends to investors, which are crucial for maintaining the financial stability and preventing

organizational failure. Financial ratios and various cash flow measures are examples of this perspective. It also explores the perspective of how the organization must look to customers which would eventually result in the achievement of the mission of the organization. However, in order to achieve this the other three elements of the BSC are equally important too.

2. ***Customer perspective***: this element is a measurement of the customers' satisfaction as well as their accomplishment requirements. Kaplan and Norton (1992) stated that there are two measurement standards which are the "core measure group" comprising of customer satisfaction, market share, customer retention, customer acquisition, and customer profitability in targeted segments; and the customer value proposition which consists of quality, lead times, attributes of product and quality, relationship & image. Kaplan and Norton (2001b) further argued that an organization is able to achieve the above with the right customers having the highest value propositions and these specific drivers constitute those factors that are vital for customers to switch to or remain loyal. This approach is associated to the expectations of the customers as stated by Montoya (2011). It is further revealed in the study that the primary basis for measuring the ability of the organization in the retention and satisfaction of their needs is through the understanding of the perception of the customer. Montoya (2011) also reflects on customer satisfaction and enunciates that it must be subjected to the value proposition of the organization. The value proposition thus must consist of the quality, price, relationships and the overall image that reflects the transfer of value from supplier to customer. There is an increasing realization of the importance of customer satisfaction among organizations in most industries, which is very obvious from the fact that when there is low customers satisfaction, customers will eventually look for other suppliers those meet their needs. And thus a poor performance from this perspective is a major indicator of future decline. Organizations aiming to achieve superior financial performance in the long term should develop and deliver products and services that the customers value (Kaplan et al, 2009).
3. ***Internal business process perspective***: A critical perspective for the organization which is used to measure the critical-to-customer process requirements and measures and includes internal business processes which ensures the highest quality of products and services (I.M.Pandy, 2005). According to Kaplan and Norton (2004) organizations should pursue innovation in products, services and internal processes that result in the creation of more customer value and thus, will have the greatest impact on customer satisfaction and as well as achieve the organization's financial objectives. the increased focus on all the activities and key processes assist the organization in providing the value that is expected by the customer both productively and efficiently (Jensen, 2001). Compared to the traditional approach the BSC establishes entirely new processes at which the organization must work towards in order to achieve the financial and also customer objectives. The BSC incorporates the innovation processes into the internal business process perspective guided by the wants or needs of the customers that consists of four major processes which are managing the R&D portfolio, identification of the opportunities for new goods and services, bringing new products and services to the market & designing and developing new production and service. Niven (2002) states that in order to satisfy a firm's customer and shareholder expectations it is necessary to focus on

entirely new internal processes rather than on incremental improvements in existing activities, which includes product development, production, manufacturing, delivery and post-sale services.

4. *Learning and growth perspective*: this perspective is concerned with how organizations train and educate their employees; gain and capture their knowledge; and how organization utilized it to maintain a competitive edge within their markets. This involves the organization's intangible assets such as the internal skills and capabilities that are required to assist the value-creating internal processes (Jensen, 2001). And thus, the learning and growth perspective are two significant features that should be incorporated with an organization's strategy as organizational learning and growth come from people, systems, and organizational processes. According to Kaplan & Norton (1996) the main concept of this perspective was for investment in new equipment and product research & development. This also involves relocating employees to other departments, implementation of incentive programs which are designed to motivate employees to provide suggestions, receive education or training, and/or gain tenure through continued employment (Niven, 2002). Chuang (2007) states similar indicators to the above authors such as human, information, and organization capital, teamwork, culture and alignment. Hence, it can be assumed that the long term success and growth in this perspective can be measured through the organization's investment in new technologies and the initiation of a continuous learning environment. (Kaplan & Norton, 1992)

THE IMPLEMENTATION OF THE BALANCED SCORECARD IN HIGHER EDUCATION

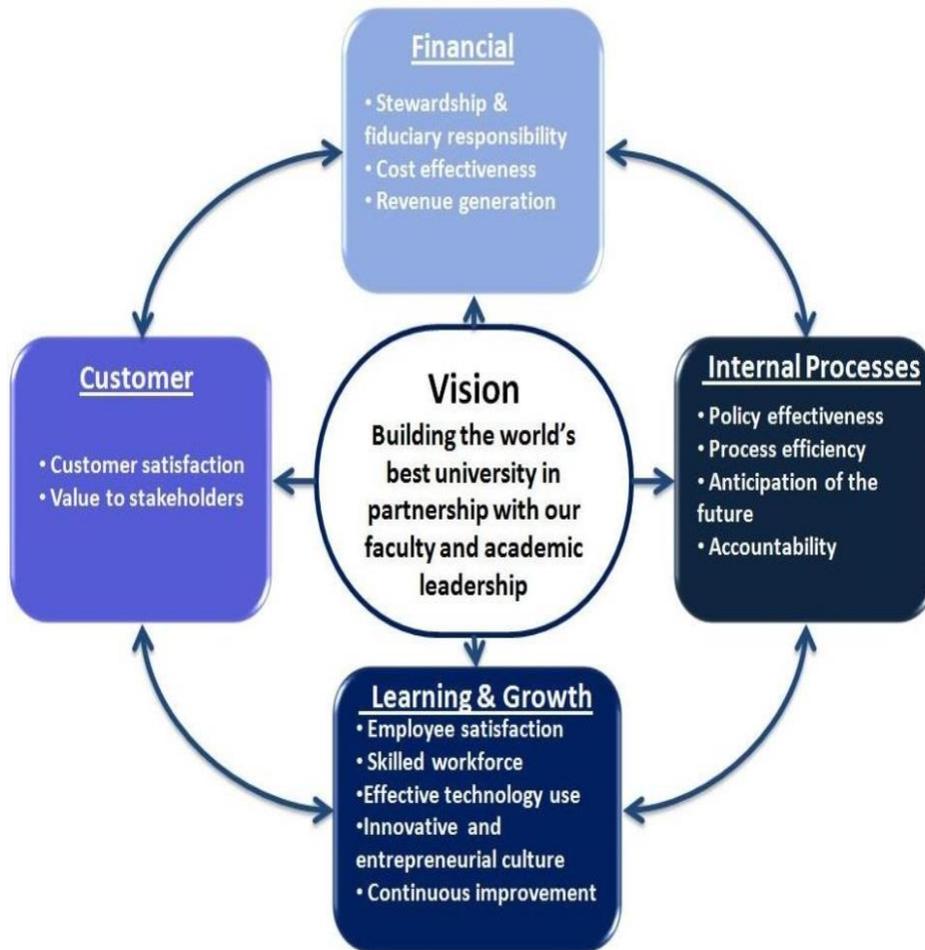
The BSC has been widely implemented successfully in manufacturing organizations, service organizations, on-profit organizations, and governmental organizations (Kaplan and Norton, 2001b), and higher education institutions are no exceptions. The same performance metric can be used to evaluate higher educational institutions as revealed by Pineno (2007) that the BSC is a powerful tool that is used to monitor the organizational performances in business schools in order to improve leadership effectiveness through the development and implementation of high performance management systems. Previous studies in Arab world (Rabab'ah, 2014; Rababah 2015; Rababah & Bataineh, 2016) have been explored to understand the factors that influence the implementation of BSC.

However, a similar performance metric in the public sector is unlikely to be effective in the private sector as the strategic goals and objectives vary to those in the private sector. This can also be taken into consideration as the goals differ in an organization to that of an educational institution. And hence, the proposed balanced scorecard of an educational institution is identified by the customers (students) needs and requirements have an effect on the way the institution responds with their educational services to the market. While taking into account these differences it is still essential for both the educational institutions and organizations to function effectively and efficiently. In view of this, it is

essential for the academic institutions to be competitive as a means to appear appealing to both customers and potential customers. and thus, higher educational institutions aim in achieving their intended results in terms of the products and services that they provide for their customers and other stakeholders of which involves the government departments such as the Ministry of Higher Education (Rahman and Hassan, 2011).

Several documented case studies of successful implementation of BSC in the academic institutions of which few are presented here. A BSC was initiated by Hafner (1998) where 9 campuses of the Unive

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Figure 2: (“About Balanced Scorecard Review - University of California, United States”, n.d.).

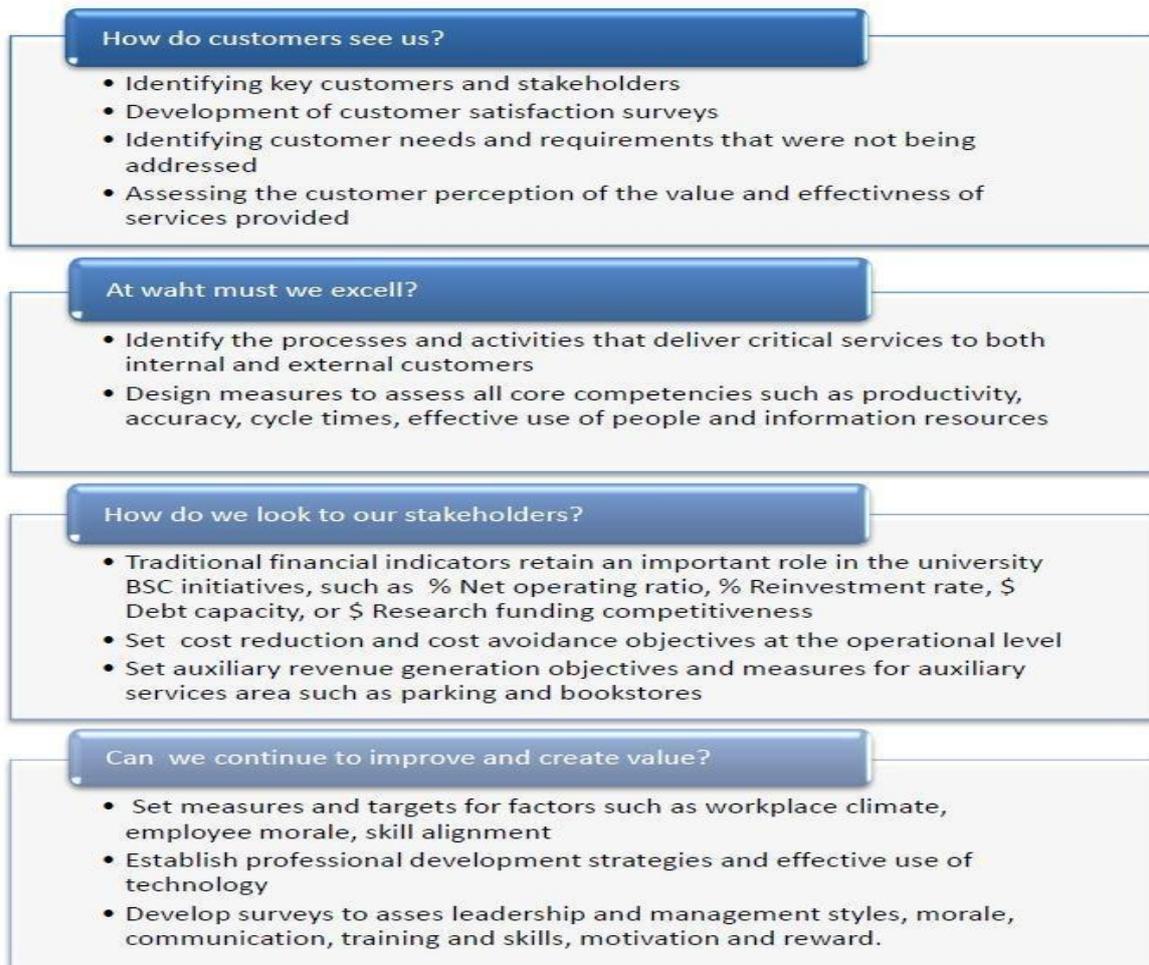


Figure 3: (“About Balanced Scorecard Review - University of California, United States”, n.d.).

Figure 3 provides an insight into the University of California’s strategic management system where Balanced scorecard used to view the performance. The success of the BSC contributed to the creation of “performance champions groups” where meetings were held in order to exchange dialogue and information concerning to performance measurement & management (Hafner 1998). Barnes (2007) reported that the University of Kuzulu-Natal (UKZN) instituted the BSCard intended to achieve three major goals which were:

- (1) “the establishment of an ongoing system of institutional evaluation for the purpose of annual reporting”
- (2) “to support the annual faculty evaluation process which informs the allocation of resources to faculties and colleges”, and
- (3) “to assist the institutional audit process of the Higher Education Quality Committee (HEQC) in 2008”.

Another educational institution to engage in the application of the BSC is the Ontario Community College in Canada where certain strategic goals were identified by the college such as managing enrollment growth; achieving academic and service excellence; achieving organizational success;

development of strategic partnerships and management of cost and achieving a balanced budget (Mikhail 2004).

O’Neil and Bensimon (1999) reported in their study that the BSC was adopted by the faculty committee at the Rossier School of Education of University of Southern California. The format for the BSC that was adopted by the faculty committee consisted of the four perspectives outlined below:

- 1) the academic management perspective where this perspective focused on the university explored the university’s leadership;
- 2) the internal business perspective which was intended to reveal at what the university excelled at;
- 3) the innovation and learning perspective which points out if the university can continue to improve and build value;
- 4) the stakeholder perspective which further reveals insights into how the students and employers view the university

Another academic institution involved in the implementation of the BSC is the Fairfield University School of Business with perspectives which were established by the university considered suitable for their academic that included scholarships and researches, teaching and learning, growth and development, service and outreach and financial resources (McDevitt, Giapponi & Solomon, 2008). A phased approach was taken at an academic unit level towards the implementation of the BSC framework where the strategy revitalization process covered the building of a foundation, development of the scorecard, accumulation of measures, examining results, suggesting changes, re-evaluating certain measures and the execution of initiatives (McDevitt, Giapponi & Solomon 2008). Throughout the analysis phase changes were implemented such as faculty members were evaluated on their capabilities to meet the envisaged goals through their contributions to “refereed publications and attendances at or sponsorship of pedagogical seminars” (McDevitt, Giapponi & Solomon, 2008).

HOW CAN HIGHER EDUCATIONAL INSTITUTIONS MEASURE PERFORMANCE THROUGH BSC?

While there is no single formula for developing a successful balanced scorecard, there are several possible elements for higher education institutions to take into account, in order to build their BSC. Firstly, the Financial perspective of the BSC helps to measure the financial performance of X University, since it is always necessary to provide resources for ongoing reinvestment on the educational services. Here not only monetary resources received directly from student’s payments can be taken into account, but also through projects developed with governmental institutions and private companies. In order to achieve the desired outcomes here, it is necessary to select the main financial elements which have an impact on the quality of educational services and the physical infrastructure. Chen et al., (2006) points out that certain financial indicators can be explored in the educational institution based on tuition incomes, and concentrating in the reduction of human resource costs and increasing asset usage while Dorweiler & Yakhou (2005) revealed in their study that financial performance indicators that can be implemented include the good financial management and the fund raising capabilities and external relationships.

Secondly, the customer perspective of BSC it would desirable to evaluate the students satisfaction related to the university's environment in terms of safety and environmental aspects, parents involvement and satisfaction, and community positive perception. This is because when the needs and requirements of the customers are not considered this would affect the institution to perform better which would result in the students looking elsewhere for other institutions that offer educational services that serve their needs better. This idea is supported by Lee (2006) who reveals that prioritizing customer perception here is the extent to which an organization engages with its customers which enables them to acquire and make use of the information gained to develop a strategy which is intended to meet the customer needs by being responsive to customer needs and wants. Hence, the customer perspective of the BSC will contribute positively to the performance of the institution as the customer's needs and requirements are being satisfied accordingly. The customers of an academic institution include all its stakeholders such as the students, parents, employers, faculty, administration, staff, government and the community as a whole. Satisfying these groups of customers will eventually result in higher rates of enrollments which will lead to higher revenues that could be invested in order to improve the internal processes along with improvements to its innovation and learning processes (Lee, 2006).

Thirdly, Internal processes perspective plays a major role in the performance of the institution and should be evaluated in terms of quality, entrepreneurship, alignment and integration. Chen et al., (2006) pointed out that internal processes could be measured from two perspectives specifically through quality service process and complete teaching facilities. The quality service processes covers the administration efficiency and student staff ratio, while the teaching facilities includes proposing teaching facilities renew rate and teaching facilities use rate (Chen et al, 2006). These metrics should be implemented to measure the effectiveness of instructional and administrative aspects such as the teacher training and use of technology, quality of transportation to the campus, accessibility to the buildings, and availability of facilities, like laboratories, libraries, computer labs and places for meals. These will result in the improvement of quality of educational services offered and efficiency among many others (Dorweiler & Yakhou, 2005). This perspective also stresses on the quality of faculty, teaching excellence, strategic plan, service efficiency & effectiveness, evaluation of the performance and assessment of the board (Dorweiler & Yakhou, 2005). Hence, these indicators assist in measuring the internal processes of an educational institution by taking into account the overall quality of service provided, teaching facilities available and the quality of teaching delivered.

Lastly, considering the learning and growth perspective in the educational institution, which is related to the staff competency and employee satisfaction, various metrics should be implemented to evaluate the teaching experience of the lecturers, the degree of formation, teamwork and morale. Therefore, the human resources, information and organizational structure is taken into account here which helps to identify the intangible assets that must be aligned to improve internal processes. The study by Thomas (2007) explores indicators such as training and development of the human resources, development in the institution's knowledge culture, the institution's engagement in research. Dorweiler and Yakhou (2005) also proposes that learning and growth should be measured by taking into consideration the institution's teaching and technology leadership, innovation in the programme or curriculum, reward system, enhancements in pedagogy.

RESEARCH DESIGN AND METHOD

A database search was conducted which covered several academic databases such as the ScienceDirect, Academia, Wiley and Google Scholar. The following keywords incorporating 'Balanced Scorecard' as part of the search were used; education, performance, higher education, tertiary education and

undergraduate. The searches were then repeated, adding the following key words: case study, perceptions and learning methods. Literature which met the inclusion criteria was reviewed in its entirety.

In all, the ensuing critical review covers only 43 articles that were relevant to the study, resulting from a very wide search and analysis of approximately 95 papers. Manual searches based on the reference lists and bibliographies of articles, reports and books considered relevant to this study were also performed.

RECOMMENDATIONS

The author agrees with several other assessments that further modification of the BSC is crucial for the successful application in higher educations. And as recommended by Mikhail (2004), it would be useful to substitute the financial perspective with a strategic goals perspective. The establishment of such strategic goals could support the university's financial priorities such as to increase student enrollment, manage costs, revenue in extended campuses and online programs. Furthermore, the higher education BSC implementations should take into account the service and outreach perspectives (McDevitt, Giapponi & Solomon 2008), that are congruent with the educational institute's mission and vision. The implementation of the BSC framework must begin in relation with clear definitions of an institution's mission, vision and strategy. And the management has a leading role in defining the mission, vision and strategy by involving all key stakeholders. Previous studies reveals that the successful implementation of BSC establishes focused channels and processes that ensures effective communication throughout the institution. With the need for continuous improvement processes, the BSC would better assist institutions to operate in a proactive mode, as the balanced scorecard's leading indicators relate institution mission and strategies with measurable outcomes that would then drive future endeavors and initiatives. The BSC approach encourages an active alignment and engagement with a variety of stakeholders, as an effective and efficient way to gauge and/or predict upcoming trends and issues. Thus, this active communication helps staff members and all parties involved to reach common understanding of the organizational vision, strategies and goals. This review attempts to craft a general framework, subjected to much modification and deliberation by the institution's mission or vision statements, believe that in order to decide what benchmark and what performance will be measured should occur through the vision that is expressed as an integrated set of objectives and measures that describe the long-term drivers of success. And so, institutions have to adopt the BSC philosophy and try their best to build it successfully. In addition, more research has to be conducted in the area under consideration.

CONCLUSION

This review provides valuable information on the use of the BSC in Higher Institutions of Learning, providing a justification for the suitability of this tool, and the importance of linking the vision, mission with a mapping of goals and objectives, performance. Although Higher education is concerned with academic qualifications such as degrees and diplomas awarded by universities, colleges and other higher institutions of learning. In this paper, we have reviewed the at present, the use of the Balanced Scorecard (BSC) in order to identify the most suitable perspectives to consider in order to assess the performance of higher education institutions. Although, the main four conventional perspectives are: financial, customer, internal business process, and learning and growth, the findings of this paper indicates that universities and higher education institutions as non-profit organizations are suggested to apply other non-financial perspectives such as community participation, innovation, strategic partnership and scientific research excellence.

Unlike other change models, the balanced scorecard provides a comprehensive view of organizational performance using multiple perspectives and supports an integrative strategic management system, relevant for HEIs, by linking long-term strategic objectives with short-term actions.

Through this a faculty can gain a richer understanding of their mission and goals related to the tactical initiatives developed to achieve those goals. At the same time, that understanding continues to help faculty members design courses to achieve those goals as they see fit.

As part of its contribution some benefits of using the BSC in HEIs, namely, such as; determining priorities on future planning and needs assessment, providing a clear structure for continuous quality improvement, establishing a culture of Academic Quality among the institutions, evaluating the efficient use of resources for each of the academic programs, and documenting the contribution of each activity towards the mission of the HEI so as to promote personal and academic excellence.

The Balanced Scorecard is presented as a prominent tool that can be used to strategize and monitor organisational performance, continuously benchmarking this with key elements of the strategic plan. The review addresses the question of applicability of the BSC in HEIs, similarities as well as significant differences between the BSC as applied to Education and the BSC applied to business. These are highlighted as part of contribution the contribution. Overall the strength of the BSC is seen to be that it establishes an evaluation system which generates appropriate performance indicators in HEIs. Through continuous improvement, institutions will gain a thorough understanding and appreciation for the strategy, implementation of planning, and results achieved. A successful BSC can provide feedback to the administration and faculty that can lead to a long-term process that will foster individual and collective growth resulting in improved organizational performance.

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