

# **Influence of Balanced Scorecard on Organizational Performance in Institutions of Higher Learning: A Case Study of University of Nairobi and Centre for Mathematics, Science and Technology Education in Africa**

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## **Abstract**

The balanced scorecard is a framework that enables an organization to implement the chosen strategy as it helps in providing adequate linkages. This enables organizations implement complex and intricate activities in their corporate strategies and monitor activities of the firm with the intent of achieving their strategic objectives. There is no empirical evidence on the influence of the balanced scorecard in institutions of higher learning in Kenya. The aim of the study was to investigate the influence of balanced scorecard on organizational performance in institutions of higher learning with emphasis on the University of Nairobi (UON) and Centre for Mathematics, Science and Technology Education in Africa (CEMASTE). Findings of the study will assist in adoption of the scorecard by institutions of higher learning that have not adopted its use as a management tool. The study was guided by the following specific objectives; investigation on customer perspective influence on performance in institutions of higher learning; exploration on whether financial perspective influences organizational performance in institutions of higher learning; an assessment of the internal process perspective and its influence on organization performance in institutions of higher learning and an examination of whether the innovation and learning perspective influences organization performance in institutions of higher learning. A descriptive study was carried out by use of a questionnaire to collect data and interpreted in sections focusing on each of the research questions and study hypotheses. From the study, it was found that there is a positive relationship between the balanced scorecard and organizational performance, with performance depending on the four perspectives. Customer perspective was found to be the most popular of the four perspectives. Findings from the study should be used in serving as a basis for implementation of balanced scorecard in organizational performance in institutions and other public institutions in other sectors.

**Keywords:** Balanced score card, Organizational performance, Knowledge management

## **1. Introduction**

According to the economic survey (Republic of Kenya 2003), the government expenditure in education went up considerably by over 40% due to the introduction of free primary education. This trend was repeated in 2007/2008 fiscal year when the government allocated more funds to the education sector to cater for increased enrolment at the secondary cycle of the education system after the introduction of free secondary education (Republic of Kenya, 2009). Besides the government allocation to the sector from consolidated fund, development partners, nongovernmental organizations and household spend substantial amount in the education sector.

Although education takes up 70 percent of the recurrent expenditure in social services in Kenya, 80 percent of this is used in paying teachers' salaries and administration expenses, (Daily Nation, 2008, July 17 page 12). The government and the society commit massive investments in education in expectation of future returns in form of quality outputs from the education system. The poverty reduction strategy paper (Republic of Kenya, 2001) underlined that education is a vehicle for poverty reduction. The National Development Plan (2002-2008), (Republic of Kenya, 2002) noted that a properly skilled human resource is an asset to effective management and utilization of resources for increased productivity. It further asserted that education leads to capacity building hence empowering people to discharge their roles more effectively and productively.

To assure the public sector of returns anticipated from investment in education, education managers must have a clear understanding of the ultimate performance standards a firm needs to achieve and also communicate such information down the line. It is observed that in the present day context in any organization, the intangible factors drive the tangible assets. Skandia Reporting Model (2001), state that human capital and structural capital are an indication of an organisations' future value and ability to generate financial results. This is why a more systematic method of reporting on and managing these intangible dimensions is needed.

In Johnson and Scholes, (2001) Porter suggests that the five forces model be employed when strategizing. He says that for an organization to succeed, it needs to take into account these forces which are: the firm, its competitors, its suppliers, its customers and also its substitutes. He further states that if all these are not monitored properly and the linkages not understood correctly, then it can impede the performance of an organization.

Sureshchandar et al., (2001a) state that the adage, “if you do not know where you want to go, any path will take you there”. This is more relevant in business performance measurement than in any other field, the rationale being that the central tenet of any performance measurement system should be a tie-in with the logical success map focusing on goal congruence and organizational alignment. In today’s era of intense competition, organizations around the globe have been more focused in assessing their own performances on a number of criteria that are deemed critical for their long term survival and success.

The Balanced Scorecard (BSC) proposed and developed by Kaplan and Norton (1992, 1996) has been accepted by the business world, worldwide, as a very promising tool for the performance measurement of an organization at the firm level. Later on, its founders described the way of using their model as an integrated system of the whole strategic planning process. However, what still remains vaguely explained is the operational (practical) connection of the BSC model to the strategic planning and performance measurement process (Theriou, Demitriades, Chatzoglou, 2004).

The balanced scorecard is a framework that enables an organization to implement the chosen strategy successfully, as the approach helps in providing adequate linkages, to enable organizations to implement complex and intricate activities involved in implementing the corporate strategies and monitor every activity of the firm with the intent to achieve the strategic objectives. It has further been noted that; the balanced scorecard is a strategic performance management system that links performance to strategy using a multi-dimensional set of financial and non-financial performance measures. It focuses on better understanding the causal relationships and links within organizations and the levers that can be pulled to improve corporate governance (Dye, 2003).

Kaplan and Norton (1996) state: “Many people think of measurement as a tool to control behavior and to evaluate past performance. The measures on a Balanced Scorecard, however, should be used as the cornerstone of a management system that communicates strategy, aligns individuals and teams to the strategy, establish long-term strategic targets, aligns initiatives, allocates long and short-term resources and, finally, provides feedback and learning about the strategy”.

The government and people of Kenya have been committing huge resources to the education sector and especially for pre-service and in-service of both primary and secondary school educators, forming the basis of creation of institutions of higher learning to fill the gap of educators in Kenya. The money spent in teacher training for example, is an investment which the society expects to reap from the trained educators. This is in the form of quality services offered such as providing quality education to their clients. It is also imperative that the educators are well motivated to remain in the profession for a reasonable period of time and perform their roles as expected as the investment in them is quite a huge one. This is possible if they are satisfied within their profession and are delivering the quality that is expected.

For education institutions to achieve the above, then the idea of organizational performance rests on them squarely. Ideas about the concept of performance vary considerably. Each interest group or stakeholder may have an entirely different idea of what counts. For instance, administrators might define an organization’s performance in terms of the amount of money brought into the organization through grants, whereas a donor might define performance in terms of the organization’s beneficial impact on a target group.

Studies of organizational performance have increased during the past several years. The idea that “performance measurement matters” has resulted in the proliferation of various frameworks of organizational performance (Lynch and Cross, 1991). The public sector and non-profit organizations which includes institutions of higher learning have experienced increasing demands for more effective decision making and more efficient management of resources. Pressure from constituents has brought about the deployment of market-based control models in non-profit and governmental organizations (Kaplan and Norton, 2001) and therefore the need for the balanced scorecard.

Very few organizations have performance data readily available. However, it is usually not difficult to generate this information from existing data or to develop mechanisms for gathering performance data. Data gathering tends to be mechanical and technical. It is far more difficult to obtain consensus on the merits of particular performance data and indicators. It is even more difficult to arrive at value judgments regarding acceptable levels of quantity and quality for each performance indicator.

The relationship between the two institutions under study is that they are both education institutions that get their financing from the exchequer and offer higher learning. CEMASTE was created from a Project sponsored by Japan International Cooperation Agency (JICA) and the Ministry of Education, Kenya, to offer in-service training for science and mathematics teachers. Kenya Science is a campus of the UON that offers both undergraduate and postgraduate degree courses in education. To this end, as players in the education sector they are continuously striving to be successful amidst the increasingly competitive, constantly changing environments and rapid growth. With such growth, stiffer competition is being met and high volatility in the business environment in operation occurring (Punniyamorthy and Murali, 2008) calling for strategies to remain afloat in the market.

Admittedly, most academic discussions on performance issues focus on private sector firms (Atkinson

and Epstein, 2000b, Kaplan and Norton, 2001) but interestingly public institutions are reinventing themselves with emphasis on performance. This they say plays an important role in improving efficiency and effectiveness of their operations. Effective decision making will only be aided through a framework that helps institutions to look at their existing gaps and introduce frameworks that will help them in this area and this is where the balanced scorecard will fit in.

There are a number of organizations in Kenya that have embraced the balanced scorecard; however, there is hardly any empirical study that has been conducted to determine the influence of balanced scorecard on institutions of higher learning in Kenya. Therefore this study was to investigate the influence of balanced scorecard on organizational performance in institutions of higher learning with emphasis on the University of Nairobi (UON) and Centre for Mathematics, Science and Technology Education in Africa (CEMASTEA). The general objective of the study was to explore the influence of balanced scorecard on organizational performance in institutions of higher learning with emphasis on University of Nairobi and Centre for Mathematics, Science and Technology Education in Africa (CEMASTEA).

## 2. Literature Review

The balanced scorecard (BSC) has attracted considerable interest among researchers and practitioners. Niven (2002) cites Silk as reporting that 60 percent of Fortune 1000 companies are either implementing the BSC or are attempting to do. Within the performance measurement literature there appears to have been a subtle shift in focus from developing models and frameworks capable of providing a balanced set of performance measures. This is being done through the implementation of such models and frameworks, to how measures, derived from the balanced models and frameworks are actually used in practice (Franco and Bourne, 2003).

Gautreau and Kleiner, (2001) have pointed out that the BSC is meant to be a strategy implementation technique and not a substitute for strategy formulation. Organizations still need to formulate a sound strategy and once formulated the task of steering the organization towards its goals can rely on the BSC. Even then, management needs to be cognizant of the changes in the environment. Formulating a strategy is also a learning process that requires adaptation to the environment and involves broadening perspectives (Mintzberg, 1994). Braam and Nijssen (2004) argue that managers need to be proactive and be alert of the changes in the environment to ensure a fit between the organization's strategy and its BSC program.

While the phrase balanced scorecard was coined in the early 1990s, the roots of this type of approach are deep, and include the pioneering work of General Electric on performance measurement reporting in the 1950's and the work of French process engineers (who created the Tableau de Bord – literally, a "dashboard" of performance measures) in the early part of the 20<sup>th</sup> century. It comprises of four interrelated perspectives; financial, customer, internal business, and innovation and learning. The perspectives, it is argued are composed of leading and lagging indicators. Internal business, innovation and learning measures drive performance while the latter benefit from performance drivers and are indicators addressing financial and customer issues. The balanced scorecard constitutes a systematic attempt to measure the relationship between the results and the operating activities as well as a powerful instrument to communicate a firm's goals and objectives to operating managers (Atkinson and Epstein, 2000a; Norreklit, 2000).

Measurement of organizational performance in institutions of higher learning should address a triple time perspective which is the past, present and future. Bourne et al (2000) point out that a framework of organizational performance should provide an early indication of future business performance as well as a record of what has been achieved in the past. This combination of the past and future perspectives, in turn, constitutes a salient characteristic of the balanced scorecard. It has evolved from its early use as a simple performance measurement framework to a full strategic planning and management system. The "new" balanced scorecard transforms an organization's strategic plan from an attractive but passive document into the "marching orders" for the organization on a daily basis. It provides a framework that not only provides performance measurements, but helps planners identify what should be done and measured. Chan (2004) notes that the use of the balanced scorecard, allows organizations to get a more rounded view of performance by identifying different key elements of performance and understanding how changes in them may have implications for others.

### 2.1 The Customer Perspective

It identifies and defines the value proposition for the targeted market segments and measures the company's success in the chosen segments. Recent management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction in any business. The motto "customer is king" has got more merit in the education sector than in any other industry due to the fact that customers play the decisive role in determining the quality or lack of it within an organization. These are leading indicators: if customers are not satisfied, they will eventually find other suppliers that will meet their needs. Poor performance from this perspective is thus a leading indicator of future decline, even though the current financial picture may look good (Dye, 2003). Companies would not know how good their services are until they ask their customers (St. Clair,

1997). The BSC emphasizes the need for organizations to translate their basic mission statement on customer service into specific measures that reflect the factors that are of importance to customers.

Central to the concept of customer satisfaction, is the need to effectively address all aspects that constitute customer satisfaction. Four aspects act as key performance indicators for the measurement of customer satisfaction, namely; the core service or the service product, human element of service delivery, systematization/standardization of the service delivery process which is a non-human element and the softwarescape which refers to the infrastructure and facilities. The criticality of these four factors in influencing customer perceptions has been well acknowledged in the customer management and service quality literature. The ultimate recognition for business excellence is improved bottom-line profitability. (Sureshchandar et al., 2002).

### ***2.2 The Financial Perspective***

The perspective deals with those factors through which an organization can create sustainable growth in shareholder value and evaluates the profitability element of the strategy. Kaplan and Norton (1996) do not disregard the traditional need for financial data. Timely and accurate funding data will always be a priority, and managers will do whatever necessary to provide it. Sureshchander et al, (2002) state that every business exists in order to make profits. It is arguable that in the huge education sector, the importance of the financial perspective would be very much acknowledged. This is because financial performance provides the ultimate definition of an organization's success. The perspective will indicate whether an organization's strategy, implementation and execution are contributing to bottom line improvement (Kanji and Sa, 2002). Profits, revenues, assets, return on investments, return on equity and turnover are some of the items used in measuring a firm's financial performance.

### ***2.3 The Internal Process Perspective***

This perspective refers to internal business processes and aims at measuring the areas of internal excellence required to deliver customer satisfaction. The internal processes are a mechanism through which performance expectations are achieved (Amaratunga et al., 2001). Metrics based on this perspective allow the managers to know how well their business is running, and whether its products and services conform to customer requirements. Whilst perspectives such as employee and customers deal with output criteria of a business performance, the core business processes are instrumental in ensuring a healthy connection between them. The performance of internal processes helps to create and deliver the value proposition for customers through the use of employees and other strategies as they are a leading indicator of subsequent improvements in customer and financial outcomes (Kaplan and Norton, 1996).

Output measures such as customer-based measures can be enhanced only by translating them into measures of what the organization must do internally to meet its customer's expectations basically through a set of processes and a good information system. Further, employees need to feel responsible for the management of those processes in which they are involved and have the requisite experience and expertise to solve problems that may arise (Kanji and Sa, 2002). Kueng (2000) states that internal process perspective should not be viewed along the traditional aspects of cost, time and quality only but also include effectiveness, efficiency and people who have an interest in it, in other words stakeholders.

The process dependent organizations can only remain competitive by applying efficient technology methods and techniques to their development processes. Technological changes in the industry are advancing in leaps and organizations that want to be competitive should not be found to be lagging behind. For this reason, the key to successful business performance is to reckon processes as a means to transfer knowledge thereby responding to the customers faster than competitors (Sureshchandar, 2005).

Apart from regular business processes, organizations need to embrace knowledge management and risk management which should be embedded in the overall business processes. Knowledge management should be regarded as an intervention on the organization's culture (Gooijer, 2000). Organizations need to gear themselves to face threats even during turbulent situations. Such threats could be either internal or external. The various categories of risk include technical, quality or performance risks; project management risks; organizational risks or external risks (PMBOK, 2000). Business processes enable us to transform an organization's strategy and vision into business results through operational procedures and methods thereby determining how exactly value is created and sustained.

### ***2.4 The Innovation and Learning Perspective***

The perspective identifies the capabilities in which the organization must excel in order to achieve superior internal process that creates value for customers and shareholders. The perspective is intended to measure a company's capacity to innovate, continuously improve and learn and it includes employee training and corporate cultural attitudes related to both individual and corporate self-improvement. In a knowledge-worker

organization, people, the only repository of knowledge, are the main resource. In the current climate of rapid technological change, it is becoming necessary for knowledge workers to be in a continuous learning mode. Metrics can be put into place to guide managers in focusing training funds where they can help the most. In any case, learning and growth constitute the essential foundation for success of any knowledge-worker organization.

Kaplan and Norton (2001) emphasize that 'learning' is more than 'training'; it also includes things like mentors and tutors within the organization, as well as that ease of communication among workers that allows them to readily get help on a problem when it is needed. It also includes technological tools; what the Baldrige criteria call "high performance work systems."

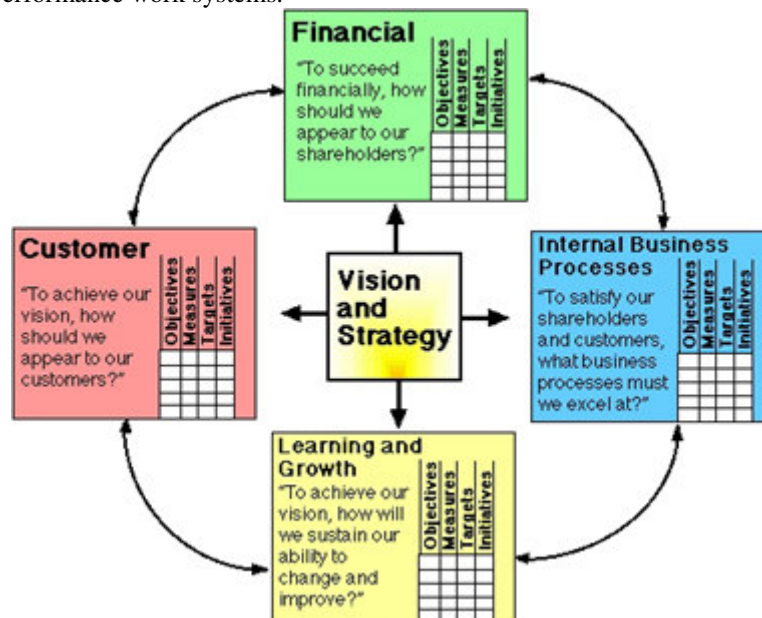


Figure 1: *Balanced Scorecard* - Adapted from Robert S. Kaplan and David P. Norton, "Using the Balanced Scorecard as a Strategic Management System," Harvard Business Review (January-February 1996).

## 2.5 Organizational Performance

The potential of the balanced scorecard to create competitive advantage is positively linked to organizational performance (Schulz and Jobe, 2001). Treacy and Wiersema (1995) proposed three "value disciplines" or strategic performance capabilities, each offering a path towards competitive advantage. Product leadership represents competition based primarily on product or service innovation. Customer intimacy represents competition based on understanding, satisfying and retaining customers. Operational excellence represents competition based on efficient internal operations. Organizations often implement the balanced scorecard perspectives to improve one or more of these three value disciplines (O'Dell et al., 2003). As described by Nalbantian et al (2004) the organizational performance is based on the following elements: people, work processes, management structure, information and knowledge, decision-making and rewards, each of which plays out differently within the context of the organization, creating a unique interlink.

Greatbanks and Tapp (2007) have reviewed literature on the impact of balanced scorecard in a public sector environment with an aim to provide empirical evidence of the impact measurement has on organizational performance. McAdam and Bailie (2002) report on research exploring the longitudinal alignment between performance measures and business strategy. They confirm that performance measures derived from strategically important projects of an organization are perceived to be more successful. They further suggest that business improvement models, such as the balanced scorecard, are particularly appropriate for ensuring the strategic alignment of measures. Lipe and Salterio (2002) report some interesting findings from studies which compare the effect of displaying performance measures within a "balanced scorecard" format, particularly with inexperienced participants.

Chan (2004) presents data from a large-scale survey of municipal governments in the USA and Canada, and cites factors which appear to influence the success or failure of implementation. In the UK, McAdam et al., (2005) observe the increasing pressure upon public sector organizations to demonstrate performance improvements. He further states that the public sector is now devoting more attention, time and money to performance measurement than ever before. Based on more practical experiences of clients of Nolan, Norton & Co. and KPMG in putting the balanced business scorecard to work, they have determined ten golden rules for its implementation as follows: There are no standard solutions; All businesses differ; Top management support is essential; Strategy is the starting point; Determine a limited and balanced number of objectives and

measures; No in-depth analyses up front, but refine and learn by doing; Take a bottom-up and top-down approach; It is not a systems issue, but systems are an issue; Consider delivery systems at the start; Consider the effect of performance indicators on behavior and Not all measures can be quantified.

Financial performance measures have been severely criticized for their historical focus on short-term emphasis (Kaplan, 1993). Such criticism has motivated the emergence of a number of non-financial performance metrics in the past several years (e.g. quality and inventory indicators). In the past, as companies invested in programs and initiatives to build their capabilities, managers relied on financial-accounting measures. Today, however, the financial accounting model must be expanded to incorporate the valuation of the company's intangible and intellectual assets. The balanced scorecard as a tool could probably address a system that balances the historical accuracy of financial numbers with the drivers of future performance while also assisting organizations in implementing their different strategies.

### 3. Research Methodology

The researcher used descriptive study design due to its ability to assist in the process of collecting data in order to test hypothesis which is what the study was testing. According to Mugenda and Mugenda (2003), the design helps one to answer questions concerning the current status of subjects in the study and also attempts to describe such things as possible behaviour, attitudes, values and characteristics.

The study was restricted to fact-finding which resulted in the formulation of important principles of knowledge and solutions to significant problems. The goal was to offer phenomena of interest from a specific perspective (Kothari, 2004). The study design was adopted as it helped the researcher get information from the respondents on how the use of balanced scorecard influences organizational performance in institutions of higher learning within the study's two organizations. The four perspectives of the balanced scorecard were analyzed from documents relating to their internal performance reports. The research design used in this study was case study design where a structured questionnaire was employed as it would enable the researcher get a detailed analysis of the research problem.

The University of Nairobi (UON), Kenya Science Campus has over 100 employees, while Centre for Mathematics, Science and Technology Education in Africa (CEMASTE A) has 82 staff. The targeted population for the study was top, middle and finance and administration who formed the management staff of the UON Kenya Science Campus and CEMASTE A. The population was divided into; Top level management, Middle level, and Finance and Administration.

The sampling method that was used for the study was non-probability method while the data collection instrument was questionnaire with closed ended questions used to collect primary data. Data collected from the duly completed questionnaire was coded, studied critically and the information therein analyzed and then synthesized to interpret the findings, which were then compared with what had been written over time. The data analysis involved computing the means and simple ordinary least squares regression.

In this study, the mean was computed for the customer perspective score, financial perspective score, internal process perspective score and innovation and learning perspective scores for both institutions. Simple ordinary least squares regression was done to test the four hypotheses in order to determine whether focus on customer perspective, financial perspective, internal process perspective and innovation and learning perspective had influence on organizational performance. According to Kothari (2004), regression is the determination of a statistical relationship between two or more variables. Simple regression has only two variables defined as an independent and dependent variable and regression can only interpret what exists physically.

On the completion of data collection, all the data collected was checked for reliability and accuracy. The study involved analyzing both independent and dependent variables. In order for the researcher to meaningfully describe a distribution of the score, a descriptive analysis was used and data was presented using tables, percentages, diagrams and charts.

### 4. Results

The researcher gave out 59 questionnaires and received 45 back which formed 76% of the population. This response rate was a fair representative and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 50% is adequate for analysis and reporting, a rate of 60% is good and a response rate of 70% and over as excellent.

#### 4.1 Quantitative Analysis

The results were as follows: the work experience of staff in the two institutions show that the staffs in both organizations were sufficiently experienced to provide authoritative and credible information on the subject matter for this study with the biggest group represented having worked in their current organization for over 7 years.

The first research question sought to establish whether focus on customer perspectives has an influence

on organizational performance in institutions of higher learning. The customer perspective score and organizational performance scores were calculated and comparisons were made between the two organizations. The customer perspective score was then regressed with the organization performance score to determine whether focus on customer perspective was a predictor of organizational performance. The data obtained was analyzed by calculating the mean customer perspective scores for each of the two organizations.

Comparatively, the UON had a higher customer perspective mean of 9.7 than CEMASTEIA with 9.4. The results show that UON performs a little better on customer perspective as regards its various customer needs focusing on responsiveness, timeliness and service quality from the customer's point of view. There is growing acceptance that institutional administration must understand and address the wants, needs and requirements of those it serves. It is undoubtedly true that customer perspective is the most important aspect of any organization. According to Curry and Kkolou (2004), recent management philosophy shows that there is an increasing realization that customer focus and customer satisfaction plays a decisive role in determining the future of any business.

The organizational performance was measured using 22 items with an overall, the staff in both organizations perceived their organization performance as high at 86.64. Comparatively, the staff in CEMASTEIA had a higher perception of their organization performance at a mean of 87.23 than those on UON-KSC at 85.23.

To determine the influence of customer perspective on organization performance, simple ordinary least squares (SOLS) regression was conducted and the null hypothesis that "focus on customer perspective will have a positive influence on organizational performance was tested". The results indicate that the customer perspective is a statistically significant predictor of organization performance at ( $t=6.762$ ,  $p<0.05$ ) with a strong model fit ( $R^2=0.51$ ) which imply that focusing on the customer perspective can contribute up to 51% of organizational performance. The null hypothesis is rejected and in conclusion, focusing on the needs of the customer is an important contributor to performance in institutions of higher learning.

The second research question attempted to establish the extent to which focus on the financial perspectives influence organizational performance of the institutions of higher learning. Therefore, data was obtained on focus on financial perspectives and organizational performance. The financial perspective was measured using five items. Both organizations are in the category of average focus on financial perspective. Comparatively, CEMASTEIA had a higher mean score of focus on financial perspective of 9.94 than UON-KSC with 9.71.

To determine the influence of financial perspective on organization performance, SOLS regression was conducted and the null hypothesis that "focus on financial perspective will positively influence organization performance was tested" which shows that focus on financial perspective was a statistically significant predictor of organization performance at ( $t=4.994$ ,  $p<0.05$ ) with a strong model fit ( $R^2=0.358$ ) which implies that focusing on the financial perspective can contribute up to 35.8% of organizational performance. The null hypothesis is rejected and in conclusion, focusing on the financial perspective of institutions of higher learning is an important contributor to organization performance.

The third research question attempted to determine whether the internal process perspective influence organizational performance in institutions of higher learning. Therefore, data was obtained on focus on internal process perspectives and organizational performance. It was measured using six items. Both organisations are in the category of average focus on internal process perspective. Comparatively, CEMASTEIA had a slightly higher mean score on internal process perspective of 17.84 compared to UON-KSC with 17.36.

To determine the influence of internal process perspective on organization performance, SOLS regression was conducted and the null hypothesis that "focus on internal process perspective will have a positive influence on organization performance was tested and shows that focus on internal process is a statistically significant predictor of organization performance at ( $t=4.825$ ,  $p<0.05$ ) with a strong model fit ( $R^2=0.351$ ) which implies that focusing on internal process can contribute up to 35.1% of organizational performance. The null hypothesis is rejected and in conclusion, focus on internal process perspective is an important component of organization performance.

The fourth research question sought to establish how the learning and growth perspective influence organizational performance in institutions of higher learning. Therefore, data was obtained on focus on innovation and learning and organizational performance which was measured using four items which were scored by the respondents. Both organisations had relatively the same innovation and learning scores at 5.07 which were in the category of high focus on innovation and learning perspective.

To determine the influence of innovation and learning perspective on organization performance, SOLS was conducted and the null hypothesis that "focus on innovation and learning perspective influences organization performance was tested" and shows that focus on innovation and learning perspective is a statistically significant predictor of organization performance at ( $t=4.308$ ,  $p<0.05$ ) with a moderately strong model fit ( $R^2=0.290$ ) which implies that focusing on internal process perspective can contribute up to 29% of

organizational performance. The null hypothesis is rejected. In conclusion, focusing on the innovation and learning perspective is an important component of organization performance.

## 5. Discussion

The study found that UON registered slightly higher levels on employee satisfaction than did CEMASTEIA. The scorecard focuses on means of taking the customer view through focusing on responsiveness, timeliness and services. Both institutions assess their performance from the perspectives of both customers who receive the services like students, faculty, staff, as well as stakeholders who judge their effectiveness and have a direct impact on their success or failure like legislators, donors and other grant agencies. The BSC emphasizes the need for organizations to translate their basic mission statement on customer service into specific measures that reflect the factors that are of importance to the customers (Kaplan and Norton, 1996).

Both institutions seem to have scored high on financial perspective with a majority being in agreement that financial perspective is an important component of organizational performance. Kanji and Sa, (2002), state that the financial perspective will indicate whether an organizations strategy, implementation and execution are contributing to bottom line improvement. Infact, finances are the grease that keeps an organization moving. From the study, both institutions concur that the perspective is considered to be an important aspect of organizational existence. Although such measures are important in an organization as they evaluate the profitability element, alone they cannot explain the real performance. According to Deming (1986), the financial performance parameters would only emerge if the organization excels in other perspectives.

Both institutions averaged on the findings on internal process perspective. Their scores gave a mean of 17.36 for UON KSC and 17.84 for CEMASTEIA. They seem to conquer that internal process perspective influences organizational performance. The perspective focuses on all activities and key processes that are required in order for the organization to excel at providing the value expected by the customers both productively and efficiently (Kaplan and Norton 1996).

According to the findings, majority of the respondents agree that their institutions implement the institutions goals and requirements, and also conquer with the statement that employees are skilled and have the required expertise to march the job requirements and ability to solve problems as they arise. The above results indicate that both institutions are practicing good internal operational measures which focus inward into the internal workings of their faculties and on those process and activities that deliver critical services to both internal and external customers. Internal business process measures address such things as productivity, accuracy, cycle time, core competencies and effective use of people and information resources.

Innovation and learning perspective is concerned with the human capital (jobs), information capital (systems) and the climate (organizational capital) of the enterprise (Kaplan and Norton 1996). From the study, extent to which the institution allows interaction of student/trainees with faculty, seminars, workshops, special events and guest lectures and if it had impact on the quality of learning was found to be the most important statement in relation to the learning perspective. There are measures for management performance which provide adequate information for improvement of programs. Such measure like use of technology and professional development better equip an organization with the capacity to better cope with the challenges of the future and its ability to change and improve.

**Table 4.1: Summary of Study hypothesis.**

Balanced Scorecard Perspectives	Hypothesis;	
	Where HO is null and HA the Alternative Hypothesis	Result
Customer Perspective	HO	Accepted
	HA	Rejected
Financial Perspective	HO	Accepted
	HA	Rejected
Internal business Perspective	HO	Accepted
	HA	Rejected
Innovation and Learning	HO	Accepted
	HA	Rejected

**These null hypotheses were tested at a significant level of  $\leq 0.05$ .**

The HO was accepted and thus the study found out that the four perspectives of the balanced scorecard influence organizational performance in institutions of higher learning.

### 5.1 Summary of findings

The concept of the study was that the organizational performance was dependent on these balance score card factors independently. It is evident from the research that these factors possess certain inherent factors by which they influence organizational performance. The study has further analyzed the relationship between the



dependent variable and the independent variables through regression analysis. The results have indicated strong relationships between all the independent and the dependent variable. From the findings, majority of the management staff who were the main respondents had worked in the two institutions between 5 to 7 years and over 7 years. This formed a very good respondent team as they know the institution well enough to be able to give reliable information.

From the study, customer perspective score gave a mean score of 9.5 for the two institutions which was interpreted as having a high customer perspective from a composite score of customer perspective ranging from an expected maximum of 16 and minimum 2. From the regression analysis, the results revealed that customer perspective influences organizational performance. On the relevance of various statements that were used in the study, they were found to be relevant to the study objective. The study found out that customer perspective can contribute to 51% of the organizational performance with respondents viewing the perspective as the most important component of the four balanced scorecard perspectives to organizational performance. The potential of the balanced scorecard to create competitive advantage is positively linked to organizational performance.

The study has established that there is a strong relationship between customer perspective and organizational performance with the perspective scoring highest of all the other perspectives tested. This finding is supported by O'Dell and Grayson (2004) that having customer-centric business strategies enables the exploration of the best mutual opportunities for customers leading to high organizational performance.

The financial perspective was also regressed to come up with a mean financial perspective score of 9.87 overall for the two institutions. From the study, it was found that the financial perspective can contribute 35.8% to organizational performance. This is a very important finding as organizations are slowly moving away from the financial performance measures which have severely been criticized for their historical focus on short-term emphasis (Kaplan, 1983).

The study revealed that focus on internal business perspective can contribute to 31.5% of organizational performance. The study found this to be an average score depicting a relationship between internal perspective and organizational performance. Through this relationship the organizations are able to measure the areas of internal excellence. Amaratunga et al., (2001), state that a focus on metrics based on this perspective allow the managers to know how well their business is running and whether their products or services conform to customer requirements.

From the study, it was found that innovation and learning perspective can contribute 29% of organizational performance. It was imperative that the two organisations showed relatively the same scores on depicting the importance that it had in the two institutions. The results further revealed a strong and positive relationship between innovation and learning perspective and organizational performance. Kaplan and Norton (2001) note that innovation and learning is becoming necessary for knowledge workers to be in a continuous learning mode with metrics being put in place to guide managers in focusing in training. They further note that emphasize should be put on learning and innovation as this allows for essential foundation for success of the knowledge worker industry.

## 5.2 Conclusion and Future Research

It can therefore be concluded that the objective of the research which was to explore the influence of balanced scorecard on organizational performance in institutions of higher learning was positively achieved. The framework of the study had conceptualized that customer perspective, financial perspective, internal process perspective, and innovation and learning perspectives influenced organizational performance. However, the researcher found apart from the fact that this is true; each of these variables is dependent on other underlying and inherent components within them. In fact, it was found that the component factors within these variables greatly affect the way these four variables influence organizational performance.

From the objectives, it is quite evident that the perspectives influence organizational performance and therefore the study concludes that the balanced scorecard influences organizational performance in institutions of higher learning. Therefore the BSC is not only a measurement tool, but also a management tool which enables organizations to clarify their vision and strategy and translate them into goal or actions. It is therefore concluded that organizations that use the scorecard are able to manage and implement their strategy, monitor and evaluate their activities. It is also useful for the public sector where performance reporting is an important mechanism for demonstrating accountability for results.

The study further revealed that when using financial measures alone organizations need to set other comprehensive sets of additional measures to use as leading indicators or predictors of financial management and other aspects of management. Separate tools to measure staff motivation, customer satisfaction and overall organizational performance may be required. When using the balanced scorecard, organisations are relieved the overlap of measures as measures all aspects of organizational performance.

The use of the balanced scorecard provides an institution especially in the area of academia with a

roadmap on where to focus its actions, policies, priorities, resources including staff in order to achieve its mission and strategic goals. Academic institutions scorecards will identify areas that have an increased need for staff, finances and other resources which will create budgetary implications.

From the study, conclusions can be drawn that the most significant advantage of the use of the balanced scorecard is that it provides a wider development of metrics that are closely connected to the strategic goals of the institution. Organizing an appropriate set of metrics through an academic scorecard provides a useful way to conceptualize and display the overall educational and financial performance of certain units within the organization. The scorecard also has a better appearance to its customers hence achieving their visions. The study concluded that the level of customer satisfaction through the customer perspective was high and hence high organizational performance.

The study recommends that further research be done on other sectors of the economy and also use of other statistical techniques which can reveal on the relationship between the variables of the scorecard and organisational performance. Success rate of the scorecard can also be studied so as to augment this study for whereas this is an excellent management tool that measures all aspect of an organization, many institutions of higher learning have not yet embraced it.

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