

## **Extent of Systems Performance of Caraga State University, Butuan City, Mindanao, Philippines**

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**Abstract** - This study adopted a descriptive survey design to assess the extent of systems performance processes of Caraga State University in Butuan City, Mindanao, Philippines with the aim of gauging the extent of systems performance processes as rated by 164 respondents consisting of 38 Administrators, 71 Faculty Members and 55 Non-academic Staff. Results show that the school's extent of systems performance processes was moderately achieved. The different perception of respondents on the extent of systems performance processes shows incongruence of perceptions among administrators, faculty and staff that leads to the gap in understanding the degree of university performance with regards to the financial aspects, customer satisfaction, internal business process efficiency and learning and innovation. The school needs to improve its processes especially its processes on customer satisfaction, internal business process efficiency and learning and innovation to improve its financial performance.

**Keywords** - Systems Performance Processes, Customer Satisfaction, Internal Business Process Efficiency, Learning and Innovation.

## INTRODUCTION

Balanced Scorecard concept explains that financial results alone cannot capture value-creating activities which means financial measures are lagging indicators and, as such, are not effective in identifying the drivers or activities that affect financial results (Karathanos & Karathanos 2005). Organizations should develop a comprehensive set of additional measures to use as leading indicators, or predictors, of financial performance. Kaplan & Norton (2001) suggested that measures should be developed to address four perspectives: (1) financial perspective - measures in this perspective should answer the question; "How should we appear to our shareholders?" (2) customer perspective - measures should answer the question; "How should we appear to our customers?" (3) Internal business processes perspective - Measures in this perspective should answer the question; "What processes must we excel at?" (4) Learning and growth perspective. These measures should answer the question; "How can we sustain our ability to change and improve?" A critical factor for an effective BSC is the alignment of all the measures in the four perspectives with the company's vision and strategic objectives. The BSC allows managers to track short-term financial results while simultaneously monitoring their progress in building the capabilities and acquiring the intangible assets that generate growth for future financial performance (Kaplan & Norton, 1996). Thus, the BSC enables managers to monitor and adjust the implementation of their strategies and to make fundamental changes in them. Devie dan Tarigan (2010) states that each perspective in BSC is interdependent among one another, especially the first three perspectives (customer perspective, internal business process perspective and learning and growth perspective), which are the factors that support financial perspective. It means that organizational effort to increase performance in customer perspective, internal business process perspective and learning and growth perspective will assist the make-up of performance in financial perspective.

In this study, the four aspects of BSC were adapted as variables in measuring the extent of systems performance processes of Caraga State University in Butuan City, Mindanao Philippines.

## FRAMEWORK

The study considers the theory of Norton & Kaplan (2001) about Balanced Scorecard (BSC) – which states that performance outcomes (results) and performance drivers (strategies) have causal relationships that cover four perspectives namely: financial perspectives, customer perspectives, internal business process perspectives, and learning and growth perspectives. These perspectives are chosen as variables for systems performance.

The Balanced Scorecard has four perspectives, namely; *financial perspective, customer perspective, internal business process perspective and learning and growth perspective*. Each perspective in BSC could not stand by itself or they are reliant to one another. As an illustration, competence of every people in organization will not be useful if each individual does not work along with others. The figure below depicts how each perspective in BSC is interdependent among one another, especially the first three perspectives (customer perspective, internal business process perspective and learning and growth perspective), which are the factors that support financial perspective. It means that organizational effort to increase performance in customer perspective, internal business process perspective and learning and growth perspective will assist the make-up of performance in financial perspective (Devie Dan & Tarigan 2010).

In this study, financial performance is categorized into attainment of cost objectives, control of non-conformities and the effective use of resources. The attainment of cost objectives is measured in terms of budget allocation, fund utilization, materials procurement, professional development, information technology and strategic quality planning. While control of non-conformities is measured in terms of non-conformance to CHED requirements, recurrence of non-conformities, non-conformance to specifications standards, and non-conformance to IQUAME. The effective use of resources is measured in terms of budget expenditure attainment and the maximum use of information system.

Meeting customer requirements is one level of customer commitment. IWA 2 provides that the educational organization top management should identify and document the needs and expectations

of learners, defined as curriculum requirements that include; learning outcomes and specific performance indicators. Learners' requirements are often implied. Customer satisfaction is measure in terms of stakeholder's satisfaction level. Customer satisfaction is a strategic issue to companies in this competitive era. Customer satisfaction can affect customers' trust (Omar et al., 2009) and their future behavior intention (Clemes et al., 2008). Furthermore, the increase in customer satisfaction will also affect on economic returns, i.e. profitability, market share, and return on investment (Sik Sumaedi, et al., 2011). In an educational institution, students are the main costumer of the organization (IWA, 2007). Thus, in a university, its main costumer is the college student. Students' satisfaction should always be considered by the university due to intensive competition among universities, internationalization spirit, higher expectation of customer to higher educational institution, an increase in the tuition fee, and the classification of education as a marketable service (Kwek et al., 2010).

Furthermore, student satisfaction is important to be discussed, considering that there is a good effect if the students are satisfied, and vice versa. Letcher and Neves (2010) reported that "psychologists have found that student satisfaction helps to build self-confidence, and that self-confidence helps students develop useful skills, acquire knowledge". On the other hand, student dissatisfaction can lead to negative student activities, such as a bad grade, an unpleasant relationship between the student and the staff, faculty, and friends (Letcher and Neves, 2010).

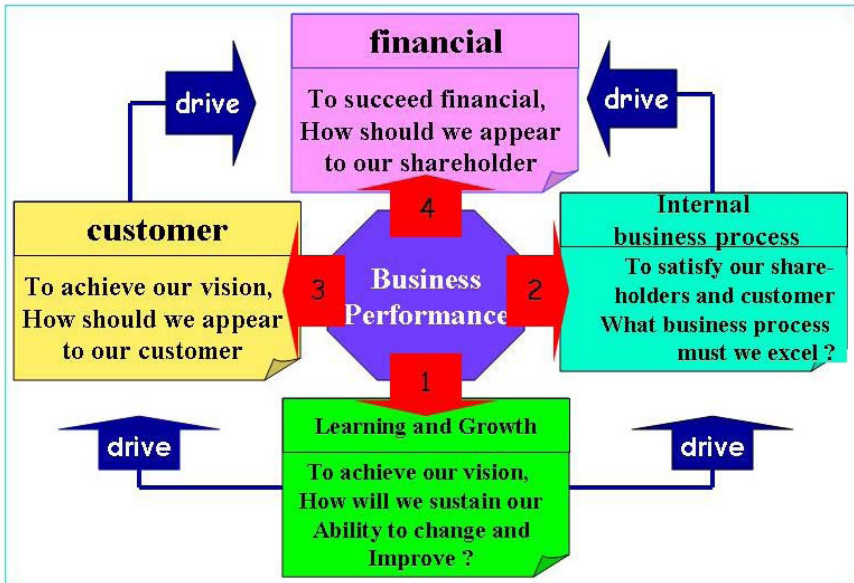


Figure 1. The Balanced Scorecard Perspective (Devie dan Tarigan 2010: Kaplan 2004)

Educational organizations typically provide a service that is intangible, not storable, and consumed during delivery. Educational organizations should provide the opportunity for learners to study existing knowledge and to practice its application (IWA 2:2007). When learning takes place in an educational organization’s classroom buildings, expectations may include (but are not restricted to) the following safe, clean facilities with someone in charge; two-way communication procedures between interested parties and the educational organization are responsive; the organization’s personnel treat everyone with respect; and appropriate activities are conducted by qualified personnel.

Thus, in this study, internal business process efficiency, is measured in terms of management of needs and expectations of interested parties, quality system conformance and IQUAME conformance, procurement improvement, and other process efficiency factors. The management of needs and expectations is composed of internal customer satisfaction,

employee satisfaction, and community relations projects. The quality system conformance and IQUAME conformance is measured to quality management system and IQUAME. The procurement improvement is measured in terms of shopping, public bidding and negotiated bidding processes.

On learning and innovation, IWA 2 states that the education environment and the rapid evolution of knowledge leads to periodic curricula and syllabus review, and resulting revision. These changes should be identified, documented, authorized and communicated. The revision of any subject should include the evaluation of its effect on the entire curriculum, and records should be maintained. Learning and innovation is composed of skills and competence improvement, better understanding of roles, responsibilities and goals, consistent and visible involvement of management, continuous improvement of performance and other learning and innovation factors. Skills and competence improvement is measured in terms of training implementation, increase in competence level. Better understanding of roles, responsibilities and goals is measured in terms of manpower availability and overtime over available man hours. Consistent and visible involvement of management is measured in terms of management reviews, internal audit, and closing of nonconformities. Continuous improvement of performance is measured in terms of improvement of projects.

## **OBJECTIVE OF THE STUDY**

The main objective of the study is not to measure the quality of education but rather to determine the extent of systems performance processes and the difference of perceptions of administrators, faculty and non-academic staff of Caraga State University.

## **MATERIALS AND METHODS**

This study utilized the descriptive survey design adapting the questionnaire based on the Philippine Quality Award Criteria for Performance Excellence and Application Guidelines (PDC-DAP:2004) and the Malcolm Baldrige National Quality Criteria (Calingo, 2000) to

assess the extent of system performance.

Random sampling procedure was done for the selection of respondents, which consists of 38 Administrators, 71 Faculty (Educators) and 55 Staff (Non-educators). Permission and authority was secured from the School's President through the Office of the Quality Assurance (QuaMs). The researcher solicited help from QuaMs Staff in distribution and retrieval of the questionnaire. The data retrieved were collated and tabulated for purposes of determining the extent of system performance of the school. Unstructured interviews were conducted to supplement the ratings of the respondents.

The following statistical techniques were used to quantify the results of the data: *Frequency Count and Percentage, Weighted Mean, Standard Deviation* - for the descriptive part of the analysis. *f-test for Independent Samples* - testing the significant difference in the ratings of administrators, faculty & staff of the extent of system performance of Caraga State University. While *One-Way Anova* - was used to determine the significant difference of ratings of respondents in the extent of systems performance.

## RESULTS AND DISCUSSION

### 1. On Extent of Systems Performance of Caraga State University

Table 1 presents the summarized perception on the extent of system performance at the Caraga State University. The overall mean of 2.81 (ME) was based on the weighted scores of 2.62 (ME) from the administrators, 2.76 (ME) from the faculty, and 3.05 (ME) from the staff. Highest impact is perceived on customer satisfaction, with an item mean of 2.92 (ME), based on the weighted scores of 2.75 (ME) from the administrators, 2.82 (ME) from the faculty, and 3.19 (ME) from the staff.

The next highest score is on learning and innovation with a rating of 2.80 (ME) based on the weighted scores of 2.58 (LE) from the administrators, 2.81 (ME) from the faculty, and 3.01 (ME) from the staff. Financial performance is perceived by the respondents as equal to internal business process efficiency which both indicators have a score of 2.76 (ME). This entails that the implementation of the quality management system at Caraga State University denotes a good

performance level in most areas of importance to the organization's key business requirements, and there are no pattern of adverse trends. Results are reported from most areas of the organization's key business requirements which indicate an attainment of 41% to 60% of an excellent performance target.

Table 1. Summary of the extent of system performance

INDICATOR	ADMINISTRATORS		FACULTY		STAFF		MEAN	
	RATINGS	VD	RATINGS	VD	RATINGS	VD	RATINGS	VD
<b>A. Financial Performance</b>	2.58	LE	2.71	ME	3.00	ME	2.76	ME
<b>B. Customer Satisfaction</b>	2.75	ME	2.82	ME	3.19	ME	2.92	ME
<b>C. Internal Business Process Efficiency</b>	2.59	LE	2.70	ME	2.99	ME	2.76	ME
<b>D. Learning and Innovation</b>	2.58	LE	2.81	ME	3.01	ME	2.80	ME
<b>GRAND MEAN</b>	2.62	ME	2.76	ME	3.05	ME	2.81	ME

## On Financial Performance

In an interview, the VP-Academic Affairs confirmed the ratings and said that it is an honest result given the fact that the school has been on the process of revising its procedures and processes with regards to the financial performance. The budget planning and implementation was done based on the approved General Appropriations Act (GAA) from the DBM and also done basing on the available Special Thrust Fund (STF) generated from the collection of tuition fees and miscellaneous as approved by the Commission on Higher Education. The implementation of the budget is subject to the internal audits (the pre-audit and the post audit) as required by the Commission on Audit. This was also confirmed by the in-charge of the scholarship grant of the university on how the university controls its budget utilization.

The interview reveals that the school has no budget for the capital expenditures to support its big projects like; school buildings and facilities. They rely only on their collection of tuition fees and



other donors from the cause oriented groups, non-governmental organizations, and other national agencies like the Department of Agriculture and also from the different political personalities like from the senators and congressmen. Hence, the school has a limited funds to perform its scheduled work, although utilization of funds was subject to internal audit and liquidation.

As a whole, the university need to review its overall system in order to attain the highest efficiency targets that leads to favorable financial performance.

### **On Customer Satisfaction**

The study shows the average rating of 2.92 (ME) entails moderate extent of system performance in the aspect of customer satisfaction based on the group average of 2.75 (ME) from the administrators, 2.82 (ME) from the faculty, and 3.19 (ME) from the staff. This indicates that the university needs to enhance its processes that have significant impact on stakeholders satisfaction.

During the interview, the school is not conducting a periodic survey to its stakeholders, what they did was a tracer study on how many graduates are able to land a job. The conduct of the survey to its partner agencies or community is done only during the visit of the AACUP, hence, there is no concrete evidence of the satisfaction of its stakeholders. Although, during the interview, the student council confirms that the current administration is very supportive to its officers, and they opined that they are happy as of the moment to the attention the university extended to them. Issues on collection of fees from the university are still the most lingering problems being faced by the students. In the interview, the administrator confirms about the problem on collection of fees, the intervention they made was through open forum and consultations.

On the other hand, the school able to demonstrate the customer satisfaction by engaging its programs with trans-national sister universities through their 1<sup>st</sup> international sister university the National Pingtung University of Science and Technology (NPUST) in Pingtung, Taiwan and it is working on its partnership with Toyo University in Tokyo, Japan.

## **On Internal Business Process Efficiency**

The study shows that the respondents perception on efficiency of its internal business process to a moderate extent. The efficiency of internal business process of the university was adequately perceived within the organization which leads to moderate attainment of efficiency in delivering the needs and expectations of interested parties.

During the interview, the respondents opined that the school was not conducting an internal survey on how was the performance of the university, this is the first time that the survey is made hence they have no idea about the needs and expectations of the different interested parties. This was confirmed by the academic affairs. The conduct of survey for the internal customer satisfaction was not done, and also with the employee satisfaction. The Survey on community relations project was done but not periodic. Hence, the respondents cannot ascertain in a balanced way in considering the needs and expectations of all interested parties to have an effective and efficient system.

As a whole, the result shows a moderate extent 2.76 perception based on the group mean ratings of 2.59 (ME) from the administrators, 2.70 (ME) from the faculty, and 2.99 (ME) from the staff. This means that the university able to attain good performance level in most areas of importance to the organization's key business requirements specifically on internal business process efficiency, and there are no patterns of adverse trends.

## **On Learning and Innovation**

The study shows the extent of system performance in the aspect of learning and innovation. The perceived extent is moderate with a mean rating of 2.80 (ME) based on the weighted mean of 2.58 (ME) from the administrators, 2.81 (ME) from the faculty and 3.01 (ME) from the staff.

Learning and innovation through other factors is perceived moderately by the respondents as evidenced by the mean score of 2.82 (ME) based from the weighted rating of 2.63 (ME) from the administrators, 2.84 (ME) from the faculty, and 3.01 (ME) from the staff. The respondents highest score is on "encourages recognition and

reward factor” 2.94 (ME) based from the weighted rating of 2.73 (ME) from the administrators, 3.01 (ME) from the faculty and 3.09 (ME) from the staff. This is because, the university has policies with regards to the recognition and rewards as confirmed during the interview. The recognition and rewards is implemented every department and there is also a university wide recognition and reward system. They have a reward and recognition program for the students and for the faculty. If the students will top in the national board examination, the students can avail the monetary reward and recognition.

As a whole, the respondents felt moderately the learning and innovation of the university.

**On Test of Difference Using One-way Anova on the Ratings of Administrators, Faculty and Staff on the Level of System Performance of Caraga State University**

**Table 4. Test of difference using one-way anova on the ratings of administrators, faculty and staff on the level of system performance of Caraga State University**

**Analysis of Variance**

System Performance Variables	Mean		VD	F-value	P-value	Interpretation
FINANCIAL PERFORMANCE	Administrator	2.5766	ME	7.17	0.001	Significant
	Faculty	2.7124	ME			
	Staff	3.0625	ME			
CUSTOMER SATISFACTION	Administrator	2.7895	ME	3.73	0.026	Significant
	Faculty	2.8169	ME			
	Staff	3.1887	ME			
INTERNAL BUSINESS PROCESSES	Administrator	2.6205	ME	4.88	0.009	Significant
	Faculty	2.6982	ME			
	Staff	2.9951	ME			
LEARNING AND INNOVATION	Administrator	2.6358	ME	3.45	0.034	Significant
	Faculty	2.8090	ME			
	Staff	3.0074	ME			

GROUP CONSENSUS	Administrator	2.6553	ME	5.43	0.005	Significant
	Faculty	2.7599	ME			
	Staff	3.0625	ME			

The table shows that there is a significant difference in the ratings of administrators, faculty, and staff in the extent of system performance at Caraga State University. The respondent differs significantly on their ratings because of the different outlook in their position. The administrators being the head of the school are considering the extent of systems performance processes are at the true state because they are the one knows the systems processes.

All the respondents agreed that the implementation of the quality management system contributes moderately to the performance of the school in terms of financial performance, customer satisfaction, internal business processes and learning and innovation. The mutual feelings of the respondents may be attributable to their internal relationship as prime movers in making the agricultural school into a State University, their eagerness to be recognized as the state university with distinct history somehow align their perceptions on the extent of systems performance processes.

## CONCLUSIONS

The following are the conclusions: (1) The moderate extent of system performance of Caraga State University revealed that they need to enhance its systems processes in order to attain significant improvements of the school. The respondents differ significantly in their ratings on school's systems performance processes. The different perception of respondents on the extent of systems performance processes shows incongruence of perceptions among administrators, faculty and staff that leads to the gap in understanding the degree of university performance with regards to the financial aspects, customer satisfaction, internal business process efficiency and learning and innovation

## RECOMMENDATIONS

The following recommendations are offered for consideration: (1) Implement a thorough review of all the interrelated processes to have a system in place and adapting the Balanced Scorecard Concept in every process so as to fully grasp the performance of the school. The school needs to improve its processes especially its processes on customer satisfaction, internal business process efficiency and learning and innovation to improve its financial performance. (2) Conduct a specific study per department to identify the specific unit that needs overhauling of its system processes.

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