



## Effectiveness of balanced scorecard: Experience from selected public organizations in Tanzania

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### Abstract

The article examined effectiveness of balanced scorecard (BSC) performance management system with reference to selected public organizations in Tanzania, namely; Tanzania Revenue Authority, Tanzania National Electric Supply Company, National Social Security Fund and Medical Store Department. The study benchmarked balanced Scorecard performance management system to Open Performance Reviews and Appraisal Systems (OPRAS) or any previously used tools by putting emphasis on how each tool provided quality of services and products as a result of having a clear and focused performance management tool in public organizations. Both theoretical and empirical writings were reviewed. The study used participatory action research and survey research design. It applied both qualitative and quantitative research approaches. Data was collected through interviews and documentary reviews. Data validity and reliability were done through pretesting of data collection instruments. The findings revealed that the BSC was more effective in comparison to OPRAS or any other previously used performance management tools. Further, the findings indicated that Balanced Scorecard brought better results and motivated employees than OPRAS. Therefore, the study concludes that there was direct relationship between balanced scorecard management system and effective organization performance.

**Keywords:** Balanced scorecard, performance management system, public organizations, open performance review and appraisal system (OPRAS)

### Introduction

Globally, performance management has been a very challenging issue among managers in both services-providing and material-production organizations. There has been a contention that the rise in quantity and quality of production has been associated with effective management of both fiscal and human resources (Rajest *et al*, 2023)<sup>[9]</sup>.

The example is provided in Turkey whereby about 45.6% of products from electrical and fabrication industries failed to compete effectively in the global markets due to low quality and lack of watermark specification (Show, 2022)<sup>[11]</sup>. In line with this, Karahan *et al*, (2022) asserts that the situation was fueled by poor technologies in Turkey's production sector and the need for identification of Performance Indicators (PIs) in human resources sector. The threshold was the fall of economy of Turkey by 5.3% and hence, the critical political instability engineered by people who demand for the ending of reforms in the economic sector.

In a similar vein, Yang (2022)<sup>[16]</sup> said that the government of Singapore was forced to renovate its country's human resources following the underperformance of employees in different economic firms. An empirical study conducted by Arta (2022)<sup>[1]</sup> observed and recommended that the government should urgently provide on-job training for employees in their occupational areas of competencies and thereafter design a comprehensive criterion for determining their performances at work. The critique was on the prevailed method of determining employee performance based on their academic/professional credentials.

Furher, Egrinya *et al* (2022)<sup>[3]</sup> conducted a study in North Central Nigeria where the findings revealed that to a large extent entrepreneurship vocational training enhances products development of Small and Medium Enterprises.

The same scenarios happened in West African countries were also observed in East African countries as Tashobya (2022)<sup>[13]</sup> conducted a study on the impact of job training on employees satisfaction: a study in public institutions in western Uganda. The findings complement that there is a moderate positive and significant relationship between on job training/off job training and job satisfaction. Further Marika (2021) pursued a study on the influence of teacher professional knowledge on service delivery in public secondary schools in Kitui Count, Kenya whereby the findings of the study indicated that there is a positive significant relationship between teacher professional knowledge and service delivery.

Effectiveness of performance management tools has been a matter of concern in the whole world. In line with that, there have been several studies conducted worldwide on managing effective employees' performance. Kabarata (2023)<sup>[5]</sup> conducted a study on the effectiveness of Teachers Service Commission on ensuring quality services to public secondary school teachers in Ruangwa District, Tanzania. The findings depicted that the Teachers Service Commission had been ineffective as it failed to promote teachers timely and to administer in-service training programmes for secondary school teachers who qualified. Additionally, before the introduction of the balanced scorecard performance management system in Tanzania,

different steps and innovations were undertaken aiming at improving its performance including setting measures and targets. According to Mukandala (1994) <sup>[8]</sup>, these measures and targets could have been used as benchmarks in assessing employees' performance at the end of the year, but lost focus and ethics among assessors, hence the assessments were questionable.

In a nutshell, since independence in 1961, Government and public organizations in Tanzania have been using a closed performance appraisal management system formally termed a confidential appraisal system. In this case, staff did not have their annual performance plans, targets and key performance indicators. Later from 2004, Tanzania developed and started to use the Open Performance Review and Appraisal System (OPRAS) which brought in public service individual accountability, open discussions during planning, appraisal, and eventually did away with confidential system of appraisal in the public service (URT, PO-PSM, 2004) <sup>[14]</sup>.

However, OPRAS had several shortcomings during its implementation such as lack of seriousness and unclear cascading of responsibilities as well as the processes. Kenya Digital News (2021) <sup>[6]</sup> argues that, although OPRAS was put in place in compliance with the Public Service Act. No. 8 of 2002, it was not user-friendly and, in reality, lacked seriousness in its implementation. In addition, the tool did not link strategic objectives to the day-to-day activities of individual employees, was not result-oriented, and made employees work in silos (Kenya Digital News, 2021) <sup>[6]</sup>.

Despite several efforts to improve employee's performance, there have been challenges in the use of performance management tools. The previously used tools such as; the closed performance management system and later Open Performance Review and Appraisal System could not bring expected positive results in terms of deliverables, behavioral changes and simplicity in using the tools. Therefore, neither of the previously used tools brought about positive behavioral change nor performance improvement, thus bringing positive behavioral results in performance in both objective and subjective aspects of the individuals.

Therefore, this study specifically makes comparison between balanced scorecard performance management system and OPRAS or any other previously used tool in Tanzania the study which has never been conducted before in Tanzania. Hence, this study recognizes a new performance management tool called balanced scorecard which is perceived as a result oriented, fair, motivational and user-friendly tool in Tanzania as opposed to OPRAS.

Henceforth, failure of OPRAS and all previously introduced reforms in improving employees' performance since independence in Tanzania has made the introduction of the Balanced Scorecard (BSC) to be a matter of concern and discussion in Tanzania and worldwide about its impact on managerial and organizational performance at large.

## Methodology

Research methodology serves as a backbone of every scientific enquiry. This chapter, therefore presents the methodology employed in this study. It describes the research philosophy, research design, research approach, research area, target population, sample and sampling procedures. It also provides explanations of the data collection methods, instruments and data analysis procedure used.

## 1. Research Philosophy

Saunders *et al.* (2019) <sup>[10]</sup> define research philosophy as a system of beliefs and assumptions on knowledge development. Knowledge is generated when a researcher conducts a study in order to give answer to a certain question. In conducting this study, pragmatism research philosophy was applied as it generates knowledge associated with value driven research and action research and emphasizes more on practical solutions and outcomes.

According to Greener & Martelli (2015) <sup>[4]</sup>, knowledge generation is the phenomenon which can produce knowledge since it is associated with empirical testing. Matoka (2020) <sup>[7]</sup> argues that, knowledge creation is concerned with gaining knowledge by enquiry. The present study employed survey method in order to collect views and opinion of employees on the effectiveness of balanced scorecard by conducting face to face interviews, making telephone interviews and documentary reviews such as individual performance appraisal reports, organization performance reports and performance management guidelines of all four selected public organizations.

## 2. Research Approaches

Based on pragmatism philosophy, this study employed mainly qualitative approach and slightly quantitative approach in order to overcome the disadvantages that are inherent when adopting mono research method. In light of that, the checklist was used to obtain quantitative data related to facilities and equipment which are used to effect balanced scorecard tasks. The approach assisted the researcher to easily track the needed number of respondents and number of tools and number of organizations from which data was to be collected and analyzed.

Qualitative research approach was used because it provides an opportunity for the problem to be studied in-depth and enables the researcher to collect facts and study their relationships.

Thus, qualitative research approach enhances learning whereby the researcher and respondents interacted specially to accomplish already formulated goals. In light of this, the qualitative research approach enabled the researcher to do an in-depth study of how effective BSC was.

Quantitative data was equally collected from documents using documentary analysis methods and a documentary review schedule. Conclusively, the researcher employed both qualitative and quantitative approaches because both approaches were notably compatible and complemented each other; the former was primary and the latter was secondary.

## 3. Study Area

The study was conducted in four public organizations which are implementing the balanced scorecard performance management system, and these are: Tanzania Revenue Authority, Medical Stores Department, Tanzania National Electric Supply Company and National Social Security Fund. These organizations were selected purposively as they had been using BSC performance management system for five years and above as follows: Tanzania Revenue Authority started using balanced scorecard from 2007, Medical Stores Department from 2014, National Social Security Fund from 2011 and Tanzania Electric Supply Company from 2010. If all factors remained constant, the experience of those public organizations in implementing

balanced scorecard was enough to give valid and reliable data on the effectiveness and applicability of balanced scorecard in Tanzania.

#### 4. Sample Size and Distribution

A sample is the number of people sought from the larger population for providing information for the study. The sample size of this study was 199, consisting of board

members, CEOs, directors, managers, and professional and non-professional employees. The sample distribution was arranged in the following manner: Tanzania Revenue Authority 61 respondents, Medical Stores Department 36 respondents, Tanzania National Electric Supply Company 52 respondents and National Social Security Fund 50 respondents. In totality the sample size was 199 as indicated in Table 1.1

**Table 1:** Sample Distribution by Selected Organizations (N=199)

Selected public institution	Board Members	Chief Executive Officers and Directors	Managers	Professional Employees	Non professional Employees	Total
TRA	6	7	4	31	13	61
MSD	3	4	3	20	6	36
NSSF	4	5	4	27	9	50
TANESCO	6	5	5	27	9	52
Total	18	21	17	106	37	199

Source: Researcher Data, (2023)

The sample size of this study was 199 which consisted of Board Members, the CEO, Directors and Employees whose distribution was also based on gender as indicated in Table.

#### 5. Sample and Sampling Procedure

Sample size was the number of respondents selected from the study population to obtain the sample population. In this study, the researcher adopted Yamane's, (1967) <sup>[15]</sup> simplified formula to calculate the sample size. A 95% confidence level and P=.5 was assumed for the equation. Hence, the researcher used the following formula to determine the sample size:

$$n = \frac{N}{1 + N(e)^2}$$

Whereby: n=Sample size, N=Population, e=Level of precision

The *level of precision e*, sometimes called *sampling error*, is the range in which the true value of the population is estimated to be. This range is often expressed in percentage points, (e.g., ±5 per cent). The *confidence or risk level of 95%* is based on ideas encompassed under the Central Limit Theorem.

Therefore:  $n = 3,468 / 1 + 3468(0.05)^2 = 199$

In this view, the study consisted of 199 respondents as clearly indicated in table 3.1 above and this was the sample of the study.

#### 6. Sampling Procedures

The following are details of how sub-samples were obtained.

##### 6.1 Professional Employees

Two types of sampling methods were employed to get the number of required professional employees. A purposive sampling method was used to get the required number of professional employees. Since the number of respondents which was obtained after using the purposive sampling method was big, the stratified random sampling method was then used to get the required number of respondents i.e. 45 males and 61 females. In stratified sampling, the researcher

attempted to stratify the sample in such a way that the sample remained within the stratum.

##### 6.2 Board members, ceos, managers and non-professional employees

Purposive sampling method was used to get the required number of CEOs, directors, managers, non-professional employees and board members as clearly explained in chapter four. Stratified random sampling method was used in selecting each category to get the required number of respondents, that is to say, 21 CEOs and directors, 17 managers and 37 non-professional employees with the composition from each selected public organization. Sospeter (2021) <sup>[12]</sup> pinpoints that stratified random sample aims to reduce the potential for human bias in the selection of cases to be included in the sample. Therefore, the researcher had to identify respondents with similar characteristics from which the researcher created non overlapping strata of category and sex.

The strata included a category of board members or CEOs and directors or Managers or professional employees and or nonprofessional employees. The researcher used lottery method to get respondents from each stratum. This method ensured that there was high representation of all categories and both sexes. Sospeter (2021) <sup>[12]</sup> argues that randomizations is the best way of ruling all alternative explanations for observed effects of treatment groups.

#### 7. Data collection methods and instruments

The study employed mainly two data collection methods: interviews and documentary review. The data collection methods and instruments (see Appendix I) that were used to collect both primary and secondary data are described below. Interviews were used in this study because the method and instrument required simple facilities such as paper and pens. The interviews were facilitated through interview questions. The researcher used interview guide to ask questions to the respondents from all categories between October 2022 and December, 2022 by visiting TRA offices, MSD offices, NSSF Offices and TANESCO offices where the researcher managed to interview CEOs and Directors, managers, professional and non-professional employees. The researcher had face to face interviews with only 8 out of 18 board members, while the remaining 10 were interviewed through telephone calls. This instrument was

easily administered in all types of environment; that is, some were interviewed in their personal offices, some in the corridors, and some out of their office.

Also the researcher used semi-structured interviews when asked specific questions with the purpose of getting specific information when the researcher tried to compare and contrast the same information gained from TRA against MSD, TANESCO and NSSF. Sospeter (2021) <sup>[12]</sup> argues that semi-structured interview is used when a researcher wants to know specific information which can be compared and contrasted with information gained in other interviews. During interview sessions the researcher asked probable questions for the purpose of getting and giving more clarification about issues raised during interviews.

During interview sessions, notebooks, papers and a voice recorder were used to get and properly keep the information provided. The respondents were requested to give consent for recording. On average, one interview session would take about 25 to 45 minutes on average. After each interview session, the recorded voices were transcribed into texts by writing them in a notebook.

Documentary review was used to review identified documents during the study. Official documents from targeted organizations were scrutinized. These included; the Tanzania Revenue Authority Act, Cap.399 R.E 2019, MSD Establishment Act No. 13 of 1993, the National Social Security Act, Cap.50.RE 2018 and the Electricity Act of 2008.

## 8. Data Analysis

The process of data analysis aimed at determining whether the collected data supported the research objectives or not. Based on research philosophy this study mainly used qualitative techniques and slightly quantitative technique was used only to analyze few quantitative data. Generally qualitative data was systematically analysed using qualitative techniques. The analysis begun with an individual respondent; then responses from different sources were grouped and sorted in correspondence with research objectives and research questions. The sorted data was then compared to identify similarities. In so doing, a large amount of organized data was reduced into small manageable analytical portions to save both time and space.

## Results and Discussion

The overall objective of this article was to assess the effectiveness of Balanced Scorecard performance management system in Tanzania. Through this study the researcher administered questionnaires to 199 respondents comprised of all categories being nonprofessional (non officers) employees, professional (Officers) employees, Managers, Directors, Chief Executive Officers and Board Members from four selected public institutions, namely Tanzania National Electric Supply Company, Tanzania Revenue Authority, National Social Security Fund and Medical Stores Department.

### 1. Effectiveness of balanced scorecard

The study focused on identifying the comparison between Balanced Scorecard and OPRAS indicated that those who said OPRAS or any other performance management system previously used before Balanced Scorecard was Excellent. Those with such responses were 3 out of 199 respondents, hence made 1.5% of the respondents. There were those who

Thirteen (6.5%) of 199 respondents responded that the tool was very good. There were those who responded that OPRAS or any other previously used tool was good. Those were 49(24%) out of 199 respondents. Ninety two (46.2%) which made and those who said the tool was very poor whose number was 42 which made 21.1% of respondents respectively responded that the tool was poor. Analytically, those who responded that OPRAS or any other previously used tool was excellent, very good and good were 65 (32.6%) while 134 (67.3%) responded that OPRAS or any other previously used tool was poor and very poor respectively.

From the above analysis, the researcher contends that the assessment using OPRAS or any other previously used tool was poor and very poor for 67.3%. The finding is in line with Traver (2022) who anticipated employee performance management tool dominated by secrecy during measuring is nothing but employees frustrating tool. In this case, in there is a need of creating an environment of transparency whereby employees at the end of measurement must know the extent of his/her performance for the purpose of correction or/and improvement. Congruent to the findings, where OPRAS was explained to be employed, the research observed the complaints from both parties that is employer and employees that the exercise was time consuming and not cost effective as it was dominated by paperwork. From the above perspective, the researcher dealt with responses with regard to the comparison in-terms of conformability and usability of Balanced scorecard performance management system and the previously used tool.

### 2. General comments on effectiveness of balanced scorecard

The researcher sought responses from respondents with regard to the general comment on the effectiveness of Balanced Scorecard Performance Management System in Comparison with OPRAS or any other previously used tool. The researcher administered the question to 199 respondents comprised of all categories being nonprofessional (no officers) employees, professional (Officers) employees, Managers, Directors, Chief Executive Officers and Board Members from four selected public institutions, namely TANESCO, TRA, NSSF and MSD.

Additionally, on comparing between BSC and OPRAS on their effectiveness, findings indicated that 39(19.6%) respondents answered that OPRAS was more effective and produced better expected results than Balanced scorecard performance management system. Four (2.0 %) of the respondents answered that OPRAS and Balanced scorecard performance management system were both weak and did not deliver expected results as required, 140 (70.4%) out of 199 respondents answered that Balanced scorecard performance management system was more effective and produced better expected results than OPRAS. Six (3.0%) respondents out of 199 answered that both Balanced scorecard performance management system and OPRAS were weak and hence need for another new performance appraisal system.

According to the respondent, balanced scorecard provided the employer with opportunity to identify their weaknesses and discuss with the employer, a situation which was never in place before. The researcher's comments on this that the opportunity the employee got to discuss with employer motivated the former to feel part and parcel of the organization and hence, engaging on critical commitment at work.

Analysis indicated that those who responded that Balanced scorecard performance management system was more effective and produced better expected results than OPRAS that was 140(70.4%) respondents compared to 59(29.6%) respondents whose answers were that OPRAS was more effective and produced better expected results than Balanced scorecard performance management system. The respondent continued to recommend the use of OPRAS as the sole tool for employee performance management arguing that he got training and the tool have been familiar for a long time.

The researcher further sought the effectiveness of Balanced scorecard performance management system in comparison with OPRAS by gathering responses from respondents. The researcher administered the question to 59 respondents comprised of all categories being Managers, Directors, Chief Executive Officers and Board Members from four selected public organizations, namely TANESCO, TRA, NSSF and MSD.

It was further revealed from the study whereby 36 (61.0 %) respondents out of 59 answered that Balanced Scorecard was more effective and motivated employees than OPRAS. There were 4 (6.0 %) respondents out of 59 who answered that balanced scorecard performance management system had improved the quality of the organization services and products. There were 2 (3.4%) respondents out of 59 respondents who answered that Balanced scorecard performance management system enabled organizations' performance rise to higher levels.

Based on these findings and focusing on strategic planning entails meeting organization objectives and accomplishment of vision and mission of the organization. This view is supported by Chauhan *et al* (2022) who say that managing the performance of employees is a central to why some organizations are successful and some organizations are failing. In the light of this, monitoring of employee performance entails determination of the extent to which employee is able to perform occupations concerning job tasks and yield better results in terms of quality of work as well as the quality of products.

### Conclusions

The study concludes that balanced scorecard performance management system is a better tool which is more effective and produces better results than OPRAS. Additionally, it improves the quality of organizational services and products and enables organizations' performance rise to higher levels, enables organizations to achieve planned strategic objectives; creates sense of responsiveness and responsibility and accountability. Further, based on the findings, the study concludes that balanced scorecard is user friendly tool and users are comfortable using it contrary to OPRAS which is not user friendly, not responsive, complicated and not result oriented.

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