# Application of Variance Analysis for Performance Evaluation: A Cost/Benefit Approach.

Jude Aruomoaghe Sunny Agbo Department of Accounting, Igbinedion University, Okada, Edo State. \*E-mail of Corresponding Author: jaruos@yahoo.com.

# Abstract

Every organization seeks to maximize its benefits and achieve its goals and objectives. In a bid to ensure this, they employ different measures in their performance evaluation. The purpose of this performance evaluation is to ensure that every person in the organization is working towards achieving a common organizational goal. In the process of carrying out their performance evaluation, they employ several performance measures. Some of the measures may be financial or non-financial. This study examined the cost and benefits associated with the use of variance analysis as a performance evaluation tool. Extensive literature review was made and it was recommended that managers should employ the balance scorecard performance measure because it strikes a balance between the financial and non-financial measure.

Keywords: Performance Evaluation, Variance Analysis, Cost/Benefit

# 1. Introduction

Every organization seeks to maximize benefits from its operations. This they can achieve through adequate planning and monitoring of such plans to ensure they don't deviate adversely from the plans. Planned operations are usually achieved with the use of budgeted standards. These Budgeted standards can be seen as a future plan of action designed by management to help achieve organizational objectives. It provides a benchmark for monitoring the operations and performance of organizations. Moreover, as organizations grow in size, there is the need for such organizations to decentralize its activities and assign managers or departmental heads to oversee these various units and departments created.

There is the need to ensure that these departmental managers don't deviate from the budgeted standards put in place in the organization as a whole to ensure that their objectives are achieved. In order to achieve this, the departmental managers are evaluated from time to time to ascertain whether their activities and mode of operations are in consonance with the organizational objectives of such organizations. In evaluating these managers, different performance evaluation tools and measures are available at the disposal of the top management to utilize. Some of these measures may be financial or non-financial depending on the various organizational policies.

This study therefore examines the application of variance analysis as a tool for performance evaluation with a particular focus on the cost and benefit associated with its utilization as a performance evaluation tool.

# 2. Literature Review

According to Okoye (2011:457), "the process of decentralization implies that autonomous units are created and reliable managers are deployed to control the operations of the autonomous units". One of the ways of assessing the reliability and efficiency of these divisional managers is through performance evaluation. Several authors have defined performance evaluation in different ways. Henderson (2012:1) defines performance evaluation as a situation "when the performance of the employee is assessed and discussed in thorough detail, with the manager communicating the weaknesses and strengths observed in the employee and also identifying opportunities for the employee to develop professionally". Dakota (2010:1) in his view states that "Performance Evaluation is a tool you can use to help enhance the efficiency of the work unit. This tool is a means to help ensure that employees are being utilized effectively". This simply implies that employees can use it as a clear indication of what is expected of them before you tell them how well they are doing, and then as feedback of how well they did. Muchinsky (2012) is of the view that performance evaluation is a systematic and periodic process that assesses an individual's performance and productivity in relation to certain pre-established criteria and organizational objectives.

Organizations employ different performance measures in evaluating performances. According to Horngren, Sundem and Stratton (2007:387), "An organizations performance measure depends on its goals and objectives". Performance measures can be divided into financial performance measures and non-financial performance measures. Okafor (2006) is of the view that financial performance measures can be subdivided into accounting measures and market based measures. The accounting measures include Return on Investment (ROI), Return on Total Asset (ROTA) and Return on Sale (ROS). The market based performance measures are stock Returns and Price volatility. The non-financial performance measures complement the financial performance

measures. They include; quality of customers service; operating efficiency, public image and goodwill.

Some researchers (e.g Henderson, 2012 and Dakota, 2010) are proposing that apart from the non-financial performance measure outlined above, other measures may include; 360-degree feedback, Management by objective and Rating scale.

# 2.1. 360-Degree Feedback (Multi-source Assessment)

This method differs significantly from the traditional supervisor/subordinate performance evaluation. Multisource assessment involves gathering information from a number of customers who actually deal with the employee providing feedback – both internal and external. Internal customers include the immediate supervisor, other managers, co-workers, and subordinates. External customers may include clients, applicants, consultants, staff from other agencies, legislators, etc. The basis of this method is to provide a broader assessment of how an employee is doing on the job. This method is viewed as an optimal tool for identifying areas for improvement, guiding behavioral change, and generally enhancing performance management capabilities because it is not dependent on a single individual's perceptions. It makes the employee much more accountable to the various customers because they now have input into the employee's performance rating (Dakota, 2010)

#### 2.2. Management By Objectives (MBO)

MBO is a form of results-oriented appraisal. It is commonly used for supervisors, but may be used for other employees as well. It requires that both the supervisor and the subordinate agree upon specific objectives in the form of measurable results. The objectives are the standards of performance. MBO is intended to motivate stronger performance on the part of managers and employees. It is assumed that if employees meet their goals, supervisors will meet their goals, and organizations will then meet their goals. MBO has the following components:

- i. Major objectives to be accomplished within specified dates.
- ii. Action plans and milestones for accomplishing the objectives.
- iii. Periodic meetings with the manager and employee to review progress and make corrections if necessary.
- iv. An assessment of employee performance at the end of the MBO cycle. An advantage of MBO is that it is a participative approach in which employees have input in setting their own objectives, as well as being involved in decisions that affect the objectives of the organization. MBO has been criticized as being based on numerical quotas rather than continuous improvement process, and that it focuses on the performance of individuals at the expense of teamwork. It is also time consuming, requiring a considerable amount of administrative work (Dakota, 2010).

#### 2.3. Ratings Scale

An alternate type of performance appraisal is the ratings scale. This methodology requires an employer to develop an in-depth grading system, similar to the way students in school are assessed. This scale is then used to evaluate an employee's success within a variety of areas, such as technical skill set, teamwork and communication skills. There is typically a minimum required grade an employee must receive in order for the performance appraisal to be considered a success. Those that do not make the grade are often put on a performance improvement plan. This method is viewed by some management theorists as an egalitarian way of measuring individual performance.

Recently, the balance score card was introduced by Kaplan and Newton. A balance score card is a performance measurement that strikes a balance between financial and operating measures, links performance to reward and give explicit recognition to the diversity of organizational goals (Horngren et al; 2007). The balance scorecard is seen as encompassing both financial and non-financial measures in the evaluation process and enables the managers to view the organization from all sides to determine if the organization is properly aligned towards achieving its goals and objectives.

#### **3.** Purpose of Performance Evaluation

The primary purpose of Performance Evaluation is to provide an opportunity for open communication about performance expectations and feedback. Most employees want feedback to understand the expectations of their employer and to improve their own performance for personal satisfaction. Lockett (1992) highlights the purpose of performance evaluation as follows;

- i. To enable the employees towards achievement of superior standards of work performance.
- ii. To help the employees in identifying the knowledge and skills required for performing the job efficiently as this would drive their focus towards performing the right task in the right way.
- iii. Boosting the performance of the employees by encouraging employee empowerment, motivation and implementation of an effective reward mechanism.
- iv. Promoting a two way system of communication between the supervisors and the employees for clarifying expectations about the roles and accountabilities, communicating the functional and organizational goals, providing a regular and a transparent feedback for improving employee

performance and continuous coaching.

- v. Identifying the barriers to effective performance and resolving those barriers through constant monitoring, coaching and development interventions.
- vi. Creating a basis for several administrative decisions strategic planning, succession planning, promotions and performance based payment.
- vii. Promoting personal growth and advancement in the career of the employees by helping them in acquiring the desired knowledge and skills.

Lucey (2003) is of the opinion that organizations stands to benefit from performance evaluation. Some of the benefits include;

- i. It promotes goal congruence.
- ii. It provides relevant and regular feedback to central management.
- iii. It encourages initiative and motivation.
- iv. It encourages long run view rather than short term expedients.

### 4. The Concept of Variance Analysis

Horngren et al (2007:345) are of the view that managers use comparisons between actual results, master budgets and flexible budget for performance evaluation. In evaluating performance, they try to distinguish between the degree to which a goal, objective or target is met and the degree to which an organization uses appropriate amounts of inputs to achieve a given level of outputs. The comparison between actual result and budgeted result is referred to as variance.

Okoye (2011:312) defines variance analysis as "the comparison of predetermined cost data and the historic cost data to ascertain the adherence to plans". Brown (2012) is of the view that the process by which the total difference between standard and actual results is analyzed is known as variance analysis. Variance analysis can also be described as the process of examining in detail each variance between actual and budgeted/expected/standard costs to determine the reasons why budgeted results were not met (www.ventureline.com).

Okoye (2011:314) is of the view that variance can be broadly classified into sales variance and elements of cost variances which are further sub-divided into various other classification while Horngren et al (2007) are of the opinion that besides the broad classification, we also have budget variances.

4.1 Benefits of using Variance Analysis for Performance Evaluation

There are several benefits that organizations stand to enjoy when the employ variance analysis as a tool for performance evaluation. Some of such benefits according to Putra (2009) include;

- 1. It allows cost control and performance evaluation by comparing actual to budgeted figures. The objective of cost control is to produce an item at the lowest possible cost according to predetermined quality standards.
- 2. Pinpoint responsibility for undesirable performance so that corrective action may be taken.
- 3. It motivates employees to accomplish predetermined goals.
- 4. It facilitates communication within the organization, such as between top management and supervisors thereby encouraging the staff to perform optimally.
- 5. It ensures that the organization is in good health (Spafford, 2003).
- 6. It ensures that managers and supervisors are focused and therefore encourage result orientation.

Despite these benefits highlighted, there are several disadvantages (cost) that may result in the use of variance analysis for performance evaluation. Some of these include;

- 1. It encourages insensitivity on the part of managers because they tend to neglect other vital tools that may be beneficial to the organizations.
- 2. Subordinates may be tempted to cover up unfavourable variances or take actions that are not in the best interest of the company to make sure the variances are favourable.
- 3. There may be a tendency to emphasize meeting the standards to the exclusion of other important objectives such as maintaining and improving quality, on-time delivery, and customer satisfaction.
- 4. It discourages innovations as workers may not want to bring innovations especially if such innovations may result in adverse variance initially.
- 5. It may lead to inaccurate decisions that may result in the fall of the organization since the data used in computing the variances may be defective. (http://www.accounting4management.com)

Nonetheless, Neves (2010) gives a solution that may help reduce the cost associated with the use of variance analysis for performance evaluation. His recommendations are;

- 1. Do not interpret variances in isolation of each other because an unfavourable direct material efficiency variance may be caused by several factors outside the control of the employee.
- 2. Do not automatically interpret a favourable variance as "good news"

But watch out for possible negative impacts in other areas of the company.

3. An exceptional improvement in a particular variance may not necessarily be good for the company because attempts to make a particular performance measure look good may conflict with the company's goals.

# 5. Conclusion

The use of variance analysis for performance evaluation has its cost and benefits to the organization as a whole. It is therefore reasonable for managers to exercise caution in the use of variance analysis so that the correct decisions will be made. Also, managers should exercise considerable care in their use of a standard cost system and it is particularly important that managers go out of their way to focus on the positive, rather than just on the negative, and to be aware of possible unintended consequences of the choices they make on their organizational objectives.

Based on the discourse in the preceding sections, the following recommendations are necessary;

- 1. Managers should employ the use of the balance score card as a performance measure because it strikes a balance between the financial and non-financial measures.
- 2. Managers should ensure that they maintain a good accounting system that will ensure that only reliable and accurate data are produced.
- 3. Top managers should ensure that competent managers with good people working skills are employed in the organizations.

# References

Brown G. (2011), Introduction to Costs Accounting: Methods and Techniques. *Retrieved from http://www.globusz.com/ebooks/ on 25<sup>th</sup> July 2012.* 

Dakota N.A (2010) "Management: Performance Evaluation" retrieved from

http://www.nd.gov/hrms/managers/guide/perfeval.html on 25th July 2012.

Henderson, K. J (2012), "What are the Different types of Performance Appraisal? *Retrived from www.ehow.com on 25<sup>th</sup> July 2012.* 

Horngren C.T., Sundem G.L. & Stratton W.O. (2007): Introduction to Management Accounting. 13<sup>th</sup> edition. New Jersey. Prentice Hall Inc.

Lockett (1992), "Objectives of Performance Management". Retrieved from

http://www.managementstudyguide.com on 25<sup>th</sup> July 2012.

Lucey, T. (2003); Management Accounting. 5<sup>th</sup> Edition London. Letts. Educational.

Muchinsky, P.M (2012), Psychology Applied to work, summerfield, NC Hypergraphic press.

Neves J.C (2010), "Performance Evaluation Using Variance Analysis". Retrieved from www.iseg.utl.pt/~jcneves on 25<sup>th</sup> July 2012.

Okafor C. (2006): "Performance Evaluation Model used in Nigerian Quoted Companies: Empirical Research Findings". Journal of Financial Management And Analysis. Vol. 19, No. 2 pp. 1-9

Okoye A.E (2011), Cost Accountancty: Management Operational Applications. Mindex press. Benin City. 2<sup>nd</sup> edition.

Putra T. (2009) "The use of standard cost and variance Analysis". Retrived from

http://accounting-financial-tax.com. On 25<sup>th</sup> July 2012.

Spafford G (2003), "The Power of Variance Analysis". Retrieved from *http://www.gantthead.com/article* on 25th July 2012.

www.accounting4management.com

www.ventureline.com

www.e-how.com

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage: <u>http://www.iiste.org</u>

# CALL FOR JOURNAL PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There's no deadline for submission. **Prospective authors of IISTE journals can find the submission instruction on the following page:** <u>http://www.iiste.org/journals/</u> The IISTE editorial team promises to the review and publish all the qualified submissions in a **fast** manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

# **MORE RESOURCES**

Book publication information: <u>http://www.iiste.org/book/</u>

Recent conferences: <u>http://www.iiste.org/conference/</u>

# **IISTE Knowledge Sharing Partners**

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library, NewJour, Google Scholar

