

## **Can performance measurement systems be used to measure effectiveness of the procurement function in an organization?**

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**Abstract :** *There has been mixed feelings about the importance of the procurement function in organizations. The function has been classified as a support function- not as important as production, finance or marketing. Some organizations have even considered outsourcing this function in order to cut costs. This state of affairs has been contributed by a lack of standard measures that can clearly indicate the contribution of effective procurement towards the organizational performance. This theoretical review aims at establishing a case for the use of performance measurement systems to show the contribution of effective procurement towards the achievement of an organization's objectives.*

**Key Words:** *Performance measurements, effective Procurement Management, effective oriented systems, efficient oriented system, naïve systems and multiple oriented systems*

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### **I. Introduction**

The procurement function is one that has attracted a lot of attention in the recent past. During the last two decades Procurement has undergone profound changes. Policy makers, academics and practitioners alike share the broad view that procurement has evolved from a clerical signoff-ridden set of activities to a strategic tool to enhance efficiency of the organizations, to regulate markets and promote sustainable development (Albano, 2012). Today, in many countries, procurement has become an issue of public attention and debate for the role it has to play in organizations, and has been subjected to reforms, restructuring, rules and regulations.

The procurement function facilitates smooth operations in any organization. This is by ensuring availability and appropriate use of resources. The resources include the raw materials that the organization converts in to goods and services or those that facilitate the conversion process. As such, the procurement function is vital as it enables an organization to achieve its stated objectives.

However, the procurement function has not been given the recognition it deserves in developing countries. This has been in spite of the efforts to position procurement in organization by the World Bank, the International Trade Organization, the United Nations Conference on Trade and Development, the World Trade Organization and, others (Batenburg & Versendaal, 2006). The lack of recognition could be deliberate or due to sheer ignorance of the value the procurement function can contribute to any organization (De Boer, 1997). While functions like production, marketing, human resource management and finance can have their performance easily measured; this is not the case with procurement management.

The non-existence of universally accepted performance measurements for the procurement function has led to irregular and biased decisions (Bailey, & et al, 1998). The need to have coherent methods of measuring performance of the procurement function in public entities, particularly in developing countries, has not been followed with sound and objective measures. (OECD, 2007).

In order to objectively identify the function's contribution towards organizational success, there is need for its appraisal. One way of establishing the import of the procurement function in an organization is through performance measurement. Performance measurements are considered as a management tool that aids in determining the contribution of a function to the overall performance of an organization.

### **Performance measurement**

Performance measurement is the process by which procurement establishes criteria, based on strategic planning goals, for determining the results and quality of its activities (Vaidya, Yu & Soar, 2003). It involves creating a simple, effective system for determining whether procurement is meeting its objectives. From the procurement management sense, performance measures are needed to determine how effective procurement policies and practices contribute to meeting the organizational objectives (Wittig, 2003).

If Procurement systems are to achieve their potential to add value to budgets and help develop local industry, there should be wider discussion and agreement on what the benefits are and how the benefits can be quantified in terms of performance measures. It is difficult to demonstrate accountability and make improvements without performance measures (Ellen,1991) because measurement is the key to making the change a success. Effective delivery of the Procurement business case depends on the continuous measurement of the key benefits (OGC 2001). Furthermore, good measurement systems with appropriate benchmarks are

important components of any reform program to identify potential areas for enhancement (APCC 2003). Since the 1930s, procurement performance has been attracting great attention from practitioners, academicians and researchers. In 1931, the National Association of Purchasing Agents (NAPA) in the United States of America (USA) organized a contest on the topic. In 1945, a committee was set up by NAPA to draft guidelines on procurement performance. In 1962, the American Management Association (AMA) funded a survey to assess performance of the procurement function (Lardenoije, Van Raaij, & Van Weele, 2005). In the 1970s and 1980s, scholars conducted independent studies in American and Dutch companies on purchasing performance in which they established scores of performance.

In 2004, the European Institute of Purchasing Management (EIPM) organized a conference “Measuring Purchasing Performance” and the issues that addressed in the conference included: measurements of intangibles as opposed to tangibles, financial measurements as opposed to other indicators, how to link measurements with everyday actions and strategy implementation, what one should know while developing a measurement system, the scope of measurement systems, limits of measurement systems, process and results measurements, measurements for driving actions towards reporting measurements, links of purchasing measurements systems with business systems and individual performance, and tactical and strategic measures indicating that institutions and academic bodies acknowledge the importance of measuring purchasing performance (The European Institute of Purchasing Management, 2004).

Apparently the issue is still not solved in developed countries. According to Basheka, et al, (2008) there is still a knowledge gap on how the procurement process can contribute to improved performance of the procurement function in these countries. Chief Executive Officers (CEOs) of organizations are often heard saying “the procurement function is not performing well”. The issue of generalizing that the procurement function is not performing without indicating the criteria used to reach that conclusion or just basing it on financial statements is not reasonable. Only when the procurement function is well planned, it is easy to identify areas where it is performing well, and where there is need for improvement (Department of Public Works, Queensland Government, 2007).

In addition, research in the field of management by Lardenoije, Van Raaij, & Van Weele, (2005) show that organizations have concentrated on costs or savings as the sole indicator or measure of performance. If costs decline, the purchasing function will be praised, while if savings decline, the purchasing function will be queried. It is as if the purchasing function is established to focus on minimizing costs while maximizing efficiency. Financial measures ignore market dynamics and increased complexity in acquisition of goods and services for public entities, Kipchilat, (2006).

With recent developments in procurement, it is significant that what is measured is not only important to the entity/organization but should also cover all core areas and activities of procurement (Department of Public Works, Queensland Government, 2006). Though purchasing performance may mean different things to different people (CIPS Australia, 2005), its focus on financial and non-financial benefits, efficiency of procedures, and effectiveness, and ability to establish a range of measures to evaluate procurement activities, (Department of Public Works, Queensland Government, 2006). However, coming up with a precise meaning of procurement performance is still difficult. This is because purchasing performance covers broader areas, for instance: performance of the purchasing function, the purchasing department, the purchasing process on a given contract, employees of the procurement department, the supplier base and many others (Knudsen, 1999).

### **Performance measures**

Research by George et al., (2004) identifies three main categories of measures of effective procurement management, which are input, process and output. Output measures are not transferable between or comparable across companies; however, they can often be easily linked through to the broader business objectives. Input measures such as cost and competence can have direct bearing on the output measures: increased competence may lead to increased performance. However this link may not be transparent and often needs further explanation. Regardless of the measures used, the metrics and the performance targets need to be aligned with the overall business strategy to ensure that procurement reflects and supports the business.

As Hellowell, (1991) has also argued, effective procurement needs to encompass end-state measures that enable the organization to monitor its ability to satisfy its customers. Wu et al. (2003), suggest measures of sales performance (market share, sales volume, prices, numbers of new customers, and numbers of customers retained), customer satisfaction (the extent to which customers: are satisfied, encourage purchases from others, are loyal) and relationship development (the strength of the relationship with a customer, the likelihood of the relationship enduring) are required.

### **Theoretical review**

This review will be guided by the following three theories of procurement performance measurement: the systems theory, contingency theory and theory of performance.

### **Systems Theory**

Systems Theory was propagated by Ludwig von Bertalanffy in his General Systems Theory 1968. It was widely known by the writings of Ross Ashby from 1960's. According to Drack et al., (2007), real systems are open to, and interact with their environments and that they can acquire qualitatively new properties through emergence, resulting in continual evolution. Systems analysis, developed independently of systems theory, applies systems principles to aid a decision-maker with problems of identifying, reconstructing, optimizing, and controlling a system while taking into account multiple objectives, constraints and resources. It aims to specify possible courses of action, together with their risks, costs and benefits. Besides, Systems theory is closely connected to cybernetics, and system dynamics, which models changes in a network of coupled variables.

Systems theory has been described variously by different people in different disciplines. It is most often described as the trans-disciplinary study of the abstract organization of phenomena, independent of their substance, type, or spatial or temporal scale of existence (Pouvreau, 2005b; Drack, Apfalter & Pouvreau, 2007). It investigates both the principles common to all complex entities, and the (usually mathematical) models which can be used to describe them. Systems theory may be seen as the interdisciplinary study of systems in general, with the goal of getting principles that can be applied to all types of systems at all levels in all fields of research and management. The term does not yet have a well-established, precise meaning, but systems theory can reasonably be considered a specialization of systems thinking, a generalization of systems science, and a systems approach (Drack et al., 2007). In this context the word systems is used to refer specifically to self-regulating systems, i.e. which are self-correcting through feedback. It is the interaction with the environment and the need to have feedback (cybernetics) that makes the systems theory applicable to this study.

The systems theory is applicable to this review on account that the function of procurement is not independent of the other functions in the organization. This specifically as the procurement function has to adapt to their environment and cybernetic (feedback) effect. These two factors play a role in the performance measurement processes. The primary purpose of this approach is to reduce the discretionary responsibilities of individuals in the organization and functions, Plunkett and Hale (1992).

### **Contingency Theory**

There are various contingency theories that exist which are applicable to the field of this review. Four layers are involved in the contingency theories which are: communication, leadership, decision making and rule. The contingency theory of communication was propagated by Goldhaber (1990). It emphasized that the differences in communication effectiveness are a function for both type of organization and composition of work force. The communication process is influenced by many internal and external constraints from the organization and its subsystems (Goldhaber, 1990). The constraints determine the status of the organization and the state of each function. The communication process is thus contingent upon external and internal stimuli and upon the degree of freedom of state within the organizational constraints. Some internal contingencies are: structural contingencies, output, demographic and traditional contingencies. External contingencies are: economic, technological, legal, social political, cultural and environmental contingencies (Matthew, Shank, Mark & Lyberge, 2015). In the contingency communication theory set out what should be considered when organizational communication takes place such as: contingencies under which organizations communicate when confronting their environment, different types of organizations have different communication needs, consideration of internal contingencies and amount of communication training required. (Kast, & Rosenzweig, 1973).

In contingency theory of leadership, the success of the leader is a function of various contingencies in the form of subordinate, task, and/or group variables (Matthew et al., 2015). The effectiveness of a given pattern of leader behavior is contingent upon the demands imposed by the situation. These theories stress using different styles of leadership appropriate to the needs created by different organizational situations. In particular, the theory emphasizes that group performance is contingent on the leader's psychological orientation and contextual variables of group atmosphere, task structure and leaders power position. Contingency theory of decision making asserts that the effectiveness of a decision procedure depends upon a number of aspects and of the situation (Heath, 1994). These include the importance of the decision quality and acceptance; the amount of relevant information possessed by the leader and subordinates; the likelihood that subordinates will accept an autocratic decision or cooperate in trying to make a good decision if allowed to participate and the amount of disagreement among subordinates with respect to their preferred alternatives.

The Contingency rules theory is an example of a rules approach to persuasion. It utilizes the idea of cognitive schemas, expectations about the attributes that given a policy will have about the consequences of behaving in a particular manner (Goldhaber, 1993; Heath, 1994). These schemata function as contingency rules that both shape the way something is viewed and structure behavior. This suggests that rules and schemata explain persuasion better than the traditional concept of attitude. According to this theory, rules are used to create responses to persuasive messages. Self-evaluative rules are associated with self-concept and image.

Adaptive rules are those that will apply effectively in a particular situation – the rules most likely to generate a positive outcome. Behavioral contingency rules are contextual. In some situations, certain consequences are considered and certain rules are activated which guide behavior. In other situations, other rules are activated (Goldhaber, 1993). External threats and rewards are meaningful only if they apply to one's personal goals.

These schemata function as contingency rules that both shape the way something is viewed and structure behavior. The theory suggests that rules and schemata explain persuasion better than the traditional concept of attitude; hence rules are used to create responses to persuasive messages. Self-evaluative rules are associated with our self-concept and our image. From this analogy, it is prudent to conclude that the contingency theory is applicable to this study as it is evident that performance measurements of the function and procurement need all aspects to do with this theory.

### **Theory of Performance**

The theory of performance has been developed by the University of Idaho and extensively written on by Don Elger. The theory develops and relates six foundation concepts that form a framework that is used to explain performance as well as performance improvements (Artley & Stroh, 2001; Bransford, Brown & Cocking, 2000). The rationale behind the development of this theory is that humans are capable of extraordinary accomplishments in their fields however challenging the tasks. To perform is to produce valued results. A performer can be an individual or a group of people engaging in a collaborative effort. Developing performance is a journey, and level of performance describes location in the journey. Current level of performance depends on six components: context, level of knowledge, levels of skills, level of identity, personal factors, and fixed factors.

The theory of performance is useful in many learning contexts since accomplishments are produced from high level performers. The traditional context of the theory of performance informs learning in classrooms, workshops and other venues that are traditionally associated with learning. In nontraditional contexts, the theory of performance informs learning in the context that is traditionally conceptualized as learning environments which include: academic advising, self-development, departments and professional groups (Amaratunga & Baldry, 2000). The theory of performance measurements gives a gateway to understanding all aspects related to performance, their applicability and relevance to the function of management generally and procurement specifically. The theory of performance is applicable to this study on account that the field of procurement is dynamic. This field has evolved over time including it being considered formidable in the organizational undertakings both private and public. It has gained recognition as a professional function.

## **II. Conclusion**

The procurement function has been shown to be a very important function in organizations. Though it has been perceived as a support function in the past, it is today recognized as an important driver of competitive advantage and hence organizational performance. In order for the function to get the respect and consideration it deserves in the organizational set up, there is need for its contribution to organizational success to be measurable objectively with measures similar to those that are applicable to other functional areas.

In this review, It has been demonstrated that performance measures can be applied to measure the effectiveness of the procurement function in assisting the organization achieve its set objectives. Such measures if implemented will go along way in positioning the procurement function rightly in the organizational hierarchy.

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