

## Value Management in the Nigerian Construction Industry: Militating Factors and the Perceived Benefits

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### ABSTRACT

In recent times in Nigeria, value management has become part of academic curriculum of quantity surveying in most institutions of higher learning either as a course or as a topic under cost control or project management. This is mainly to prepare these students for a new era of value management that is about to be witnessed in the Nigerian construction industry and this research aim at determining factors militating against the exercise as well as the perceived benefits if fully incorporated into construction works. Data were collected via interview of construction professionals that are eligible to be a member of value management team. The study found out that value management has not been fully embraced in the country and it will enhance good quality of construction works and standard delivery if fully incorporated. Government policy and incompetent professionals were the two major factors identified as militating factors. The study finally recommends a need for Nigerian construction clients to adopt value management on their projects.

**Keywords:** Benefits, Construction Industry, Militating factors, Nigeria, Value Management.

### 1.0 INTRODUCTION

Construction industry all over the world has not been static and the reasons for this include clients' growing demand, complexity of construction projects, advancement in technology and introduction of new innovations amongst others. Demand for value management all over the world is on the increase as noted by Morrison (1984) and Nigeria will soon be a part of it. The discipline of value management, which was first applied to construction projects in the United States in 1970s (over four decades ago) according to The College of Estate Management (1995), is receiving an increasing amount of attention within the international project management community (Stuart, 1994). In South Africa, Sigle, *et al* (2000) observed that clients are insisting that value management should be applied to their construction projects and such could probably be attributed to the effectiveness of value management as a tool for ensuring value for money.

Value management has not been fully embraced in Nigerian construction industry as only very few number of value management workshops have been organised so far according to investigation and the workshops were even concluded prematurely. This may be a good start for the practice in the country and probably, one will expect it to gain ground in the next couple of years. The concept of value management is also gaining ground among Nigerian construction professionals as revealed by Olanrewaju and Khairuddin (2007) where about 36%, 30%, 11% and 19% of the research population that are familiar with value management are quantity surveyors, engineers, architects and estate managers respectively. It is to be noted at this point that familiarity with the practice of value management does not necessarily connote competencies to function as a value manager neither is it enough to ascertain the number of professionals that has been involved in value management workshop at one time or the other. This study therefore examined the various impediments to the practice of value

management in Nigeria and perceived benefits of the discipline if fully implemented into construction projects in the country.

## **2.0 LITERATURE REVIEW**

### **2.1 Value and value management**

The Institute of Value Management (2008) observed that the concept of Value relies on the relationship between the satisfaction of many differing needs and the resources used in doing so. The fewer the resources used or the greater the satisfaction of needs, the greater the value. Stakeholders, internal and external customers may all hold differing views of what represents value. The aim of Value Management is to reconcile these differences and enable an organization to achieve the greatest progress towards its stated goals with the use of minimum resources.

There are so many views and opinion on the discipline of value management. The Institute of Value Management (2008) defined the term value management as “a style of management particularly dedicated to motivating people, developing skills and promoting synergies and innovation, with the aim of maximizing the overall performance of an organization”. The concept of value management according to Society of American Value Engineers (2008) is defined as “a systematic, multi-disciplinary effort directed towards analysing the functions of projects for the purpose of achieving the best value at the lowest overall life cycle cost. This definition is not complete as observed by De Leeuw (2006) where he stated that return on investment, which is a vital issue to the private sector, is supposed to be included.

Value management according to Office of Government Commerce (2007) is “a well established methodology for defining and maximising value for money”. As incomplete this definition may be, it suggests that the discipline of value management can be applied to any type of project regardless of size or timeframe and at all stages i.e. throughout the life cycle of the project from inception to completion. This may be contrary to the general belief that value management must and can only be applied at the design stage of construction project. This connote that value management is becoming dynamic and various forms of its application in the construction industry are springing up. This discrepancy is further clarified by Kelly and Male (2006) where value engineering is said to be a sub-set of value management in that the former deals mainly with the design processes while the latter deals with the overall management of value throughout the contract.

Odeyinka (2006) defined value management as “a service, which maximises the functional value of a project by managing its development from concept to completion and commissioning through the audit (examination) of all decisions against a value system determined by the client”. In summary, value management can therefore be seen as “a systematic and multi-disciplinary process directed towards analysing the functions of projects from its inception to completion and commissioning (through auditing or examination) for the purpose of achieving best value and return on investment at lowest possible overall life cycle cost. The following can be described as the core of value management definition as observed by Short, *et al* (2008): A systematic or organised approach; Multi-disciplinary; Analysis of function (Functional analysis); Inception to completion and commissioning; Best value; Lowest possible overall life cycle project cost; and Return on investment

The SAVE International Standard adopts the term Value Methodology (VM) and it highlights value methodology as including the processes known as Value Analysis, Value Engineering, Value Management, Value Control, Value Improvement and Value Assurance (Male, 2002). Finnigan (2001) defined value engineering as a systematic effort to improve the value of a product or system and optimise the life cycle cost. Value management is generally divided into three stages and they are value planning (dealing with value during the early stages in the planning of a project), value engineering (dealing with value during design and/or engineering

stages) and value analysis (identifying value in respect of the completed project). No wonder most authors prefer the term “value management” to “value engineering”. In De Leeuw (2006) opinion, the process has more to do with “value” and “management” rather than “value” and “engineering”. The primary role of the value manager as opined by Male and Kelly (2008) is to decide on structure and deliver a study style tailored to a particular value problem or value challenge, be it for a project, project programme, service or organisational function

## **2.2 History of value management**

Value management initially called value analysis (Kelly and Male, 2006) and latter value engineering that was used to describe the traditional approach to the discipline according to The College of Estate Management (1995) was developed in the United States during the 1940s and was first applied to construction projects in the 1960s, mainly by public sector bodies.

Palmer, Kelly and Male (1996) observed that value engineering was developed during the World War II and it began as search for alternative product component, a shortage of which had developed as a result of the war. Due to the war, however, these alternative components were often equally unavailable and this led to a search not for alternative components, but to a means of fulfilling the function of the component by an alternative method. It was later discovered that this process of “functional analysis” produced low-cost products without reducing quality and, after the war, the system was maintained as a means of both removing unnecessary cost from products and improving design and this led to the birth of value engineering process based on analysis of function.

By the 1970s, the use of value engineering in most developed countries of the world had become widespread that it was often mandatory for general services administration contracts in the United States, and considerable success in its use was recorded and it is believed that Nigeria will soon be part of the development.

## **2.3 Benefits of value management**

The Institute of Value Management (2008) observed that the most visible benefits arising out of the application of value management include: better business decisions by providing decision makers a sounds basis for their choice; improved products and services to external customers by clearly understanding, and giving due priority to their real needs; enhanced competitiveness by facilitating technical and organizational innovation; a common value culture, thus enhancing every member's understanding of the organization's goals; improved internal communication and common knowledge of the main success factors for the organization; simultaneously enhanced communication and efficiency by developing multidisciplinary and multitask teamwork; and decisions which can be supported by the stakeholders.

These benefits are available to providers and consumers in all sectors of society: The industrial sector including manufacturing, construction and processing; The services sector, both public and private; and The government, health, education and other public activities.

## **3.0 RESEARCH METHODOLOGY**

Primary source of data through interview of relevant and appropriate professionals in the Nigerian construction industry was employed in the course of this study. Due to the nature of the research (i.e. predictive/future based), open and close ended interview was considered a good means of collecting data because the research needed to acquire much information about the subject thus did not place any limitation on the way the respondents are to respond. Also, there isn't much available literature on value management exercise/workshop in Nigeria, so

the research required firsthand information. Using convenience sampling method, interview was conducted for Nigerian construction professionals that are relevant to the study and at least, a member of each of the professional bodies that are eligible to participate in value management exercise were interviewed.

#### 4.0 DATA ANALYSIS AND DISCUSSION OF FINDINGS

##### 4.1 Characteristics of respondents

Table 1 shows the general characteristics of the respondents for the interview. It could be observed that the respondents are spread across all the professional bodies relevant to the study with mean years of working experience of about 16 years.

**Table 1:** Summary of characteristics of respondents

Category	Classification	Frequency	Percent
Profession Of Respondents	Quantity Surveying	8	33.33
	Architecture	4	16.67
	Building	6	25.00
	Engineering	4	16.67
	Estate surveying and valuing	2	8.33
	<b>Total</b>	<b>24</b>	<b>100.00</b>
Years Of Working Experience	0 – 5	0	0.00
	6 – 10	2	8.33
	11 – 15	8	33.33
	16 – 20	8	33.33
	21 – 30	4	16.67
	31 and above	2	8.33
	<b>Mean</b>	<b>15.83</b>	
Academic Qualification	HND	1	4.17
	PGD	10	41.67
	Bachelor	2	8.33
	Masters	10	41.67
	Ph.D	1	4.17
	<b>Total</b>	<b>24</b>	<b>100.00</b>
Professional Membership Type	Graduate	3	12.50
	Probationer	1	4.17
	Corporate	18	75.00
	Fellow	2	8.33
	<b>Total</b>	<b>24</b>	<b>100.00</b>

##### 4.2 Value management in Nigeria

Respondents were asked on their level of knowledge of value management and their perceived level of adoption of value management on construction projects in Nigeria. The essence of this is to validate what is obtainable from literature and observation that value management has not been fully embraced in Nigeria.

Table 2 on the level of knowledge of the respondents shows that most of the respondents have an average knowledge of value management while on value management in Nigeria as shown

in table 3, it could be observed that most of the respondents ranked the level of adoption as below average with majority selecting low level.

**Table 2: Respondents' knowledge of value management**

Criteria	Frequency	Percent
Low	2	8.33
Uncertain	4	16.67
High	13	58.33
Very High	3	16.67
Total	24	100.00

**Table 3: Adoption of value management in Nigeria**

Criteria	Frequency	Percent
Very Low or None	6	25.00
Low	10	41.67
Uncertain	6	25.00
High	2	8.33
Total	24	100.00

On the respondents' involvement in value management exercise which has to do with value management workshop as depicted in table 4, most of the respondents first respond "yes" and latter change their answer when asked of the outcome of the exercise. One of the 2 respondents that finally answer "yes" to this question further said that the exercise was concluded prematurely while the other person describe the exercise as frustrating. It was further observed that these 2 respondents were involved in the same value management exercise and they both denied any awareness of any other value management exercise in the country as at the time of this study.

**Table 4: Involvement in value management exercise**

Criteria	Frequency	Percent
No	22	91.67
Yes	2	8.33
Total	24	100.00

#### 4.3 Perceived benefits of value management

The following were pointed out by the respondents as their perceived benefits of value management if fully incorporated into construction projects in Nigeria. The responses were written as affirmed by the respondents not minding the orderliness and this is to preserve the genuineness of the response: Encourage use of local materials in construction; Adoption of new construction techniques/innovation; Cost effectiveness; Effective delivery system/meeting completion period; Aids conflict management; Improves quality of work; It promotes adaptability and flexibility; It gives the true worth or value of money to client; It enhances competitive edge for the contractor; It enhances quality performance of construction projects; Eliminates unnecessary design; Improves functional space quality of projects;

Enhance economic investment; Reduce cost and improve value; It will increase the level of performance in construction industries; It will help in decision making; It will help the construction industries to give best value for money to their clients; It will enhance construction professionals to work as a team; It will give room for motivation and high technical advancement; It will enhance good quality of work; It will enhance mutual relationship and confidence; It will ensure standard delivery i.e. value for money; Increase performance of the construction industry; Unnecessary spending will be avoided; Technological advancement; Effective project delivery services; Much valuable projects; and It will reduce project abandonment.

#### **4.4 Value management militating factors**

On the other hand, the following were suggested as the major impediments to the application of value management to construction projects in Nigeria: Ambiguous design; Time of completion/delay; Conflict management; Finance; Construction methodology; Inadequate knowledge of benefits of value management; Lack of involvement of professionals i.e. specialists right from the onset; Greediness of the contractors and consultants; Lack of total quality management principles in construction firm; Professional incompetence; Technology level; Finance/fund; Procurement style; Government factor; Human factor; Communication gap; Government policy; Unstable economy; Poor management especially on the part of the client; Lack of professional competence; Use of wrong/quack professionals for construction works; Lack of understanding of the concept; and Lack of information.

#### **5.0 CONCLUSION AND FURTHER RESEARCH**

It could be observed that value management adoption in Nigeria is on the very low level and this is as a result of inadequate knowledge of value management, government policy, unstable economy, professional incompetence, poor management, etc. It could also be observed that in most of construction projects in Nigeria where professionals are involved, they are only involved at the very beginning i.e. pre-contract stage and they are even rendered handicapped in that the client will often act without the consent of his consultants especially if the contractor and the client have a cordial relationship. Value management if fully incorporated will enhance economic investment, eliminate unnecessary design, help in decision making, reduce construction cost and enhance value for money. The study finally recommends the need for professionals to encourage Nigerian construction clients (especially governments at all levels) in the adoption of value management in their projects.

The findings of the study provide possible directions for further studies in that the researcher was able to interview just two professionals who have participated in a value management workshop in the country. Further work can be done by involving more of these set of professionals.

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