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An Investigation into the Potential Hindering Factors of Implementing Performance Information Procurement System in Nigeria

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ABSTRACT

Notably in the construction industry, procurement is evidently important and cannot be played down because it constitutes every phase of a project delivery system. The low-bid system has remained the most popular procurement system globally. In Nigeria, it lacks transparency and accountability. Therefore, the Nigerian Procurement system has shown a need to be stabilised by shifting risk and control to the expert who has the duty to act in the client's best interest by adopting "Best Value Performance Information Procurement System (BVPIPS)" in contractor selection. This paper aims at identifying factors that can hinder the implementation of this innovative procurement system and their relative influence. A total 314 questionnaires were distributed to 5 construction industry professionals in Nigeria they are: Architects, Quantity Surveyors, Civil Engineers, Builders and Services Engineers. The data collected were presented and analysed using: cross tabulation, exploratory factor analysis and mean score ranking using Statistical Package for Social Sciences (SPSS) version 24 and Microsoft Excel respectively. Likert scaling was used to measure the level of agreement of the respondents. The paper found out that the social factor, political factor, procurement

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environment factors and the cultural factor in the construction industry ranked 1, 2, 3 and 4 respectively and which factors have a very strong relative influence on hindering the implementation of BVPIPS in the Nigerian construction industry. The implication of this study is, to help construction practitioners, researchers, academics, industry players, and other stakeholders to look into the significant issues that can hinder the implementation of PIPS in Nigeria and make better the delivery of projects in the construction industry. Therefore, these factors identified should be considered and precautionary measures taken when implementing BVPIPS in the Nigerian construction industry so as to accommodate innovative approaches such as BVPIPS to improve project delivery in Nigeria.

Keywords: Best Value Performance Information Procurement System (BVPIPS), construction industry, innovation, Nigeria, performance, procurement methods, project delivery value

INTRODUCTION

For years past in the construction industry lots of changes have occurred. Different project delivery systems were suggested which include the traditional (lowest-bid), design-bid-build and Construction Management at risk (Kashiwagi et al., 2004). The different types of procurement methods available today were developed from the need to improve project delivery in construction, that is, projects being completed within budget and time (Babatunde et al., 2010). The procurement methods are being emphasised particularly on optimising all the key performance indicators (KPI) involved in project delivery; these are: time, cost and quality (Daniel, 2006). Acquiring projects within these limits has continually being a dare to the design team, the contractors, and managers of investments (Adesanya, 2008). The Cooperative Research Centre for Construction Innovation (2004) found that, "traditionally, the procurement approach used focuses on the lowest-bid system which can be a timely process to produce the full contract documentation". This is the most practised in Nigeria.

Turksi (2008) pointed that "the importance of contractor selection is mostly underestimated and neglected in construction". Yawei et al. (2005) observed that selecting a contractor was a risk management process for the fact that the duly selected contractor should be proficient to bear portions of the project risks; as construction projects became more complex, so also was the contractor selection process. Therefore, based on these opinions by researchers, a need to make stable the procurement of construction projects in Nigeria, by, way of transferring the risk and control to contractors who must act in the best interest of the client by the use of "Best Value Performance Information Procurement System (BVPIPS)" in contractor's selection should be considered.

The Best Value Performance Information Procurement System (BVPIPS) is more than just a procurement system. It is a frontline technology, business model and, a leadership model put together which focuses on factors other than just price, such as expertise and quality when choosing contractors. Hence, ascertaining a visionary position to the construction project right from its beginning (Nihas, 2016). In agreement PBSRG (2016), also asserted that BVPIPS process provides clients with a tool to identify and select the Best Value contractors for their projects, based on performance instead of just lowest price. Unlike other Best Value methods out there, PIPS also has mechanisms to measure the contractor's performance throughout the duration of the project.

BVPIPS was originally developed by Prof. Dr Dean Takeo Kashiwagi, from Arizona State University as strictly, a selection process. The first test of the process was performed in 1994 according to Kashiwagi, (2013). It was used, to select roofing systems and contractors for private organizations which included: Intel, IBM, and McDonald Douglas. This system was documented to have performed so well, for the roofing industry then, the system spread to other construction areas.

BVPIPS has been transformed into four models which are: (1) selection Model, (2) Measurement Model, (3) Risk model and, (4) Management model (Kashiwagi et al., 2012). For the purpose of this paper, only the selection model is being discussed.

The BVPIPS functions as a delivery structure for the optimisation of the supply chain which aligns resources to minimise the management, directing and controlling of the expert contractor, and increases accountability, transparency, and value in any project Kashiwagi (2017).

According to Kashiwagi (2017), the objective of the BVPIPS approach is:

1. To allow the systems and contractor to identify the best value contractor,
2. Use performance metrics and cost to identify and select the best value contractor,
3. Ensure that the best value contractor pre-plans and includes all stakeholder actions in his plan,
4. Hire a best value expert contractor who will track cost, time and quality deviations on the project,
5. Help to hire the experts who are paid the most and, minimize project cost through efficiency,
6. Minimize transactions caused by decision making, direction and control of the expert contractor,
7. Transfer control of the project to the expert contractor's project manager and,
8. Increase value and quality by minimizing project deviations.

This is the opposite of what is obtainable presently in the Nigerian construction industry. In selecting a contractor in the Nigerian construction industry, the lowest-bid which is the traditional procurement approach, is mostly utilised (Kadiri & Ogunkola, 2014; Alejo,

2015). Oladinrin et al. (2013) avowed that the Nigerian construction project execution was faced with a major problem of delay in their delivery also, the industry was faced with the challenges of cost overrun, declining level of client's satisfaction, poor quality performance of the projects, time overrun and poor workmanship by contractor. Olatunji (2007) asserted that arguably, poor methods and procedures of selection of contractor could be linked to this.

However, these methods are not only biased; decisions on public contract awards are also, based on informal associations between contractors, public officials, and project teams. Thus, most of the models of assessment used for the selection of contractors are not based on value and merits of bids but on tender price and initial lowest bids, as well as other informal factors (Olatunji, 2007). In the world bank assessment of the year 2000, it pointed out that the procurement system in Nigeria lack transparency and accountability. This agrees with the former Chairman of the Nigerian Institute of Quantity Surveyors, NIQS, Lagos chapter, Mr Jide Oke, in Vanguard Newspaper by Njoku (2013), that the major problem facing the procurement of projects in Nigeria is corruption and lack of transparency in contract awards and execution. Unfortunately, Nigeria Public Procurement Act has not been able to achieve the primary objectives of transparency, accountability, and value for money (Familoye et al., 2015).

As a result of these challenges being faced by the Nigerian construction industry the Budget Monitoring and Price Intelligence Unit (Due Process) was created. It is the arm of the Federal Government mandated to inject probity into the country's procurement system by, checking excessive use of discretionary power exercised by government officers in contract award (Adeyemi & Kashiwagi, 2014). Hitherto, the Due Process thus far, has not been able to come about with the necessary remedy that would actually solve or significantly improve poor procurement performance in the country (Adeyemi & Kashiwagi, 2014). Hence, a shift in paradigm from the lowest-bid procurement to the best value procurement by the use of PIPS technology is a possible remedy capable of disentangling corruption, collusion, fraud, bid rigging, ethical violations and negative headlines from developing countries' procurement environment such as Nigeria instead of, advancing methods that only scratches the problems on the surface.

This means that the BVPIPS is presently not in use or being practiced in Nigeria but, its implementation in Nigeria should be considered.

This new approach in best value procurement can bring about accountability and transparency. "The risk management orientation of the BVPIPS structure disengages relationships, inaccurate expectations, bureaucratic as well as political actions" (Adeyemi & Kashiwagi, 2014). The core benefit of Best Value is that "it identifies expertise as the only factor that can minimise the risk of non-performance and any attempt to manage and control a contractor is inefficient and costly" (Kashiwagi & Byfield, 2002). Therefore, it

will be important to identify those factors that can hinder its implementation in the Nigerian construction industry. Hence, this study targets at exploring factors capable of hindering the application of BVPIPS in the Nigerian construction industry and showing their relative influence on BVPIPS implementation.

LITERATURE REVIEW

Wan et al. (2005) specified that "innovation is a process that involves the generation, adoption and implementation of new ideas or practices within an organisation". In concordance, Slaughter (1998) depicted innovation as the effective utilisation of significant change and refinement in a process, product, or system that was novel to the institution developing the change. From these views it is obvious that innovation brings about change and people fear change. There is a saying by Dostoyevsky (1998), which goes "taking a new step, uttering a new word, is what people fear the most". Therefore, in implementing any innovative technology or approach comes with a lot of hindrances within an organisation or nation. According to Kashiwagi (2016), The Best Value Approach (BVA) is a change in paradigm. It replaces the owner/buyer's decision making and management, direction and control (MDC) (traditional low-bid procurement approach) with the utilization of expertise. It is an approach which transfers the control of the project to the best value expert vendor/contractor. Kashiwagi (2016)also identified that, the best value performance information procurement system (BVPIPS) was a 'value based' approach that procured and delivered best value services. Hence, being a value based approach it is more widely accepted that the term value management (VM) being an innovative approach can be used to represent other related value methodologies (Shen & Liu, 2003). Therefore, some researchers in VM have identified factors that can hinder the implementation of such innovative approaches these factors are shown in Table 1.

Table 1

Hindering factors from literatures

Hindering Factors	Author	Year	page
Lack of information such as specifications,	Al-Yami	2008	
Standards, historical data, etc.,			
Lack of leadership,			
Lack of time to implement VM,			
Lack of awareness about VM, and			
Client commitment			

Table 1 *(Continued)*

Hindering Factors	Author	Year	Page
Lack of VM knowledge and practice, The resistance to change by the involved parties, and The conflicting objectives of the project among parties	Jaapar et al.	2009	
The number of personnel with VM certification, VM implementation regulation, Personnel composition, The comprehension level of VM technique and management, and Personnel's level of education.	Latief and Untoro	2009	
Lack of expertise knowledge about the innovative approach (VM) Lack of technical norms and standards, and Lack of experts.	Xiaoyong and Wendi	2012	
Standards and specifications, Habitual thinking and negative attitude, Lack of local guidelines and information, Lack of knowledge and practices, and Change in owners' requirements.	Fard et al.	2013	

Table 1 *(Continued)*

Hindering Factors	Author	Year	Page
Lack of policy as government legislation, Client's negative reception, and Lack of knowledge about VM.	Aduze	2014	
Lack of knowledge about the innovative approach (VM), Lack of support from parties with authority such as government and owners, Lack of local innovation implementation guideline.	Lai (as cited in Kim et al.)	2016	p. 2

Based on these researchers' findings in Table 1 and 2 show the summary of factors that can hinder the implementation of such innovative approaches which were applied in this study as summarised from the literatures reviewed above.

Table 2

Summary of the hindering factors from literatures

Hindering Factors	Authors	Year	page
Lack of local guidelines and information such as specification, standards etc.	Al-Yami Latief and Untoro Xiaoyong and Wendi Fard et al. Lai (as cited in Kim et al.,)	2008 2009 2012 2013 2016	p. 2
Lack of knowledge about VM	Jaapar et al. Xiaoyong and Wendi Fard et al. Aduze Lai (as cited in Kim et al.,)	2009 2012 2013 2014 2016	p. 2

Table 2 *(Continued)*

Hindering Factors	Authors	Year	page
The resistance to change by the involved parties	Jaapar et al. Fard et al Aduze	2009 2013 2014	
Lack of VM experts	Latief and Untoro Xiaoyong & Wendi	2009 2012	
Personnel level of education and Certification (training)	Latief and Untoro	2009	
Lack of support and commitment from parties with authority such as government and owners.	Al-Yami Lai (as cited in Kim et al.)	2008 2016	p. 2

In addition to these factors, Kashiwagi (2016) also identified contractor's non-involvement from the beginning of the project, inability of clients to use experts and lack of transparency and accountability as other factors that could hinder BVPIPS implementation.

These nine (9) factors were the factors obtained from literatures but, during the pilot survey the following factors were included by the experts used to conduct the pilot survey. They are: lack of flexibility to accommodate the adoption of BVPIPS, lack of commitment to implement BVPIPS, lack of encouragement on the part of government, inadequate facilitation skills and training, difficulty in the involvement of decision makers and other key partners in BVPIPS, lack of political will of the government and, lack of legislation which provides BVPIPS application in the construction industry. These therefore, summed up the factors to a total of sixteen (16) factors.

Hence, being a value based innovative approach, those factors identified to hinder VM are hereby absorbed to be factors that hinders BVPIPS implementation which give rise to the hindering factors used in this study's questionnaire. They are:

1. Lack of BVPIPS knowledge,
2. Absence of local BVPIPS guidelines,
3. Lack of willingness to accept changes and new innovations from government and clients,
4. Inability of clients to use an expert contractor,
5. Stakeholders resistance to accept new innovations,
6. Client and contractor's reluctance to self-development and training,

7. Lack of BVPIPS experts,
8. Contractor's non-involvement from the beginning of the project,
9. Lack of transparency and accountability,
10. Lack of flexibility to accommodate the adoption of BVPIPS,
11. Lack of commitment to implement BVPIPS,
12. Lack of encouragement on the part of government,
13. Inadequate facilitation skills and training,
14. Difficulty in the involvement of decision makers and other key partners in BVPIPS,
15. Lack of political will of the government and,
16. Lack of legislation which provides BVPIPS application in the construction industry.

METHODOLOGY

This study has to do with the construction industry thereby, affecting the construction professionals hence, their opinion on the subject matter will be of uttermost importance. Thus, the professionals who are responsible for the design and production of facilities and products of the construction industry were consulted. They were registered professionals; members of the Nigerian Institute of Architects (NIA), Nigerian Institute of Quantity Surveyors (NIQS), Nigerian Institute of Building, and Nigerian Society of Engineers (NSE). They were: Architects, Quantity Surveyors, Builders, Civil Engineers and Services Engineers. Four (4) locations were selected where these professionals to carry out their professional duties: they are Abuja the Federal Capital Territory (FCT), Kaduna state, Jos - Plateau state and Minna - Niger state. These locations were selected because of the level of construction works that were being carried out within each location was significant. A total of 3,537 registered professionals were based and practiced within these locations (NIQS; NIA; NIOB; NSE, 2016). This therefore, was the established population of this study but for an inference to be made on a population, a sample size which represented the population must also be established. To achieve this, according to Bartlett et al. (2001), their table for determining minimum returned sample size for a given population size for continuous and categorical data, the closest to this study's population of 3537 is 4000 and the sample size to be used should be 351. Therefore, 351 was used but 314 professionals only were able to completely give their opinion on the hindering factors of PIPS which is to say about 89% were consulted. According to Baruch (1999), cited in Nulty (2008 p. 306), the overall average acceptable response rate was 55.6%. Thus, the response rate of this study is said to be adequate.

In this study, for the purpose of uncovering a comprehensive spread of the hindering factors, literature (journals, conference papers and thesis) review was carried out. After which as McLeod (2018) confirmed, that "questionnaires can be an effective means of measuring the behaviour, attitudes, preferences, opinions and intentions of relatively

large numbers of subjects more cheaply and quickly than other methods" hence, a questionnaire survey from construction professionals namely: Architects, Quantity Surveyors, Civil Engineers, Builders and Services Engineers in Nigeria was carried out to determine their level of agreement with each item measuring the hindering factors. A total number of 314 questionnaires were completed and returned for data analysis. From the literature review a list of 16no. items measuring the hindering factors were identified. This was followed by the used of the "statistical package for social sciences (SPSS)" software version 24 towards performing exploratory factor analysis (EFA) as observed by Rahn (2018), that Factor analysis enables researchers to explore ideas by way of variable reduction to small number of unrevealed factors capable of being understood. Lastly, mean score ranking was conducted using "Microsoft Excel 2013" software so as to show from the professionals' perception which factor has the more relative impact on hindering BVPIPS implementation in the Nigerian construction industry.

RESULTS

Exploratory Factor Analysis (EFA)

Yong and Pearce (2013) contributed that "The broad purpose of factor analysis is to summarize data so that relationships and patterns can be easily interpreted and understood. For that reason, it is normally used to regroup variables into a limited set of clusters based on shared variance. Hence, it helps to isolate constructs and concepts". The 16 items were subjected to principal component analysis (PCA) using SPSS version 24. Before performing PCA the suitability of data for factor analysis was assessed. The inspection of the correlation matrix revealed the presence of many coefficients of 0.3 and above. Below are the findings.

Table 3

KMO and Bartlett's Test for hindering factors

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.809
Bartlett's Test of Sphericity	Approx. Chi-Square	2275.500
	Df	120
	Sig.	0.000

Table 3 shows the KMO and Bartlett's Test for Hindering Factors of which the Kaiser-Meyer-Olkin Measure of Sampling Adequacy value is 0.809, which is greater than the proposed minimum value of 0.6 (Kaiser, 1970; Kaiser, 1974) and Bartlett's Test of Sphericity (Bartlett, 1954), was statistically significant, encouraging the correlation matrix factorability. Revealing the presence of four (4) components from the PCA with an eigenvalues exceeding 1, which is explaining 37.036%, 10.5%, 9.74% and, 6.62% of

variance respectively. An inspection of the scree plot revealed a clear break after the forth component. Using Catell (1996), scree test, it was decided to retain four (4) components for further investigation.

To help interpret these four components, varimax rotation was performed. The rotated solution revealed the presence of a simple structure (Thurstone, 1947), with all component showing a number of strong loadings and all variables loading substantially on three components. The four component solution explained a total of 63.9% of the variance explained with component 1 contributing 37.04%, component 2 contributing 10.5%, component 3 contributing 9.75% and component 4 contributing 6.6%. The interpretation of the four is shown in the Table 4.

Table 4

Rotated Component Matrix[a] *for hindering factors*

	Component			
	1	2	3	4
LCI BVP/PIPS	0.761			
IFST	0.742			
SRTNI	0.730			
LEPG	0.724			
I CLNT EXPT	0.617			
CCRSDTR	0.544			
L BVP/PIPS		0.841		
LCF		0.840		
A L BVP		0.801		
L W		0.530		
L BVP/PIPS EXP			0.679	
CIFB			0.653	
LT&A			0.648	
DIIDM			0.511	
LPW				0.730
LL				0.721

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 15 iterations.

Table 4 has brought about the underlying factors or latent variables that are being measured by this factored items or observed variables. From the factor analysis shown in Table 4 which generated four (4) components, looking at the relationship within each component the underlying factors evolved were named as follows:

1. Cultural factor,
2. Social factor,
3. Political factor and,
4. Procurement environment factor. These are shown in Figure 1

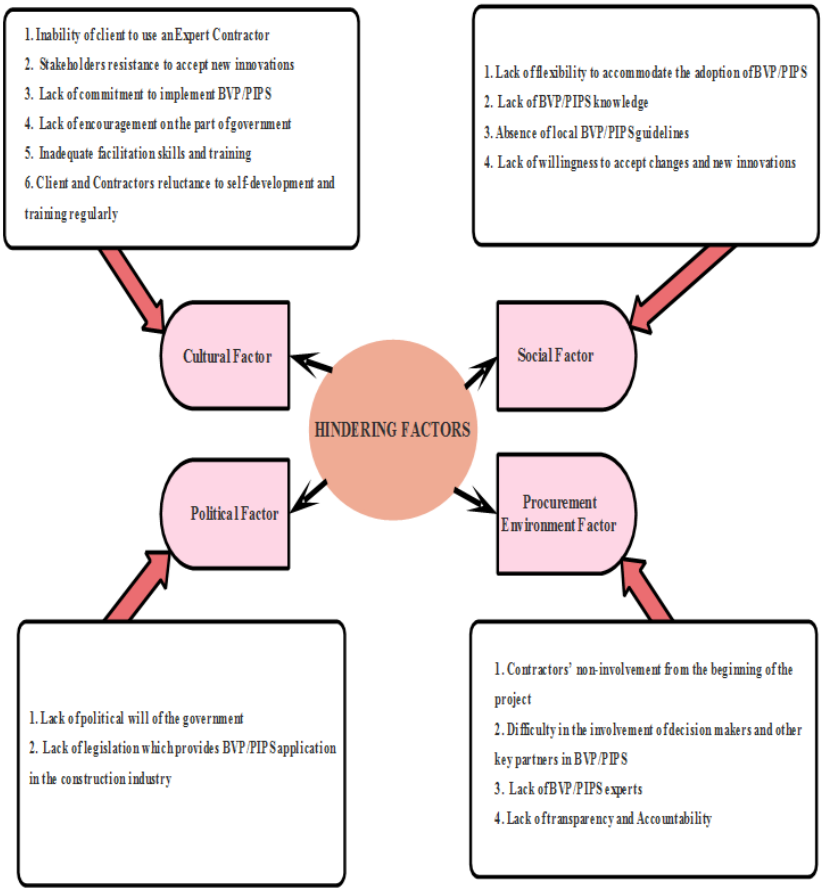

Figure 1. The underlying hindering factors

Cronbach's alpha normally accepts measure for scale reliability of 0.7 as a cut-off value (Nunnally & Bernstein, 1994). Though, Moss et al. (1998) opined that a Cronbach alpha value above 0.6 is generally acceptable. Nagpal et al. (2010) had suggested that for subscale measures, a cut-off value of 0.6 was adequate. Also, Anelli et al. (2018) added that A value ≥0.7 indicated high reliability; 0.5 to <0.7, moderate reliability; >0.2 to <0.5, fair reliability; and ≤0.2, low reliability. In this study, the Cronbach alpha coefficients for cultural factor, social factor, and procurement environment factor were all above 0.7 while, political factor being an exception with a value of 0.642; see Table 5. The Cronbach alpha coefficients for the three (3) factors or scales were thus deemed to be good indicators of their reliability or indicates high reliability, except for one, which was acceptable or moderately reliable as a result of this research being an exploratory type.

Table 5

Reliability test of the hindering factors

S/No.	Factors	No. of Items	Cronbach's Alpha	Decision
1	Cultural Factor	6	0.838	high reliability
2	Social Factor	4	0.834	high reliability
3	Procurement Environment Factor	4	0.701	high reliability
4	Political Factor	2	0.642	moderate reliability

Mean Score Ranking of Hindering Factors

These factors shown in Tables 4 and 5 are hereby subjected to ranking by the use of mean Score ranking to see from the professional's point of view which among the factors has more relative impact on hindering the implementation of BVP/PIPS in the Nigerian construction industry.

Equation 1, is the formula used for mean score.

$$MS = \frac{\sum n.p}{N} = \frac{P1*n1 + P2*n2 \ldots n5, \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots}{N} \quad (1)$$

Where, MS = Mean Score
n = weighting number of the scale
p = probability distribution of respondent
N = total number of respondents

The decision rule on Likert scale on mean score is:

Mean Score <1.50= very low, 1.5 – 2.49= low, 2.50-3.49= moderate, 3.5-4.49= high then > 4.50 = very high (Ameyaw, 2014).

Table 6

Mean score tanking of the hindering factors of PIPS implementation

S/ No.	Hindering Factors	Arch	Q/S	Building	Civil Eng	S Eng	Average MS per Factor	Factor Ranking
				Average MS Per Item from professionals				
	SOCIAL							
	SF1			4.885				
1	SF2			4.881			4.855	1
	SF3			4.847				
	SF4			4.807				
	CULTURAL							
	CF1			4.801				
	CF2			4.750				
2	CF3			4.754			4.770	4
	CF4			4.747				
	CF5			4.744				
	CF6			4.824				
	PROCURMENT ENVIRONMENT							
	PEF1			4.777				
	PEF2			4.798				
3	PEF3			4.804			4.802	3
	PEF4			4.830				
	POLITICAL							
	PF1			4.798				
4	PF2			4.824			4.811	2

Legend

SF1 –SF4: Lack of flexibility to accommodate the adoption of BVP/PIPS, Lack of BVP/PIPS knowledge, Absence of local BVP/PIPS guidelines, Lack of willingness to accept changes and new innovations respectively.

PF1 –PF2: Lack of political will of the government and Lack of legislation which provides BVP/PIPS application in the construction industry respectively.

PEF1 –PEF4: Contractors' non-involvement from the beginning of the project, Difficulty in the involvement of decision makers and other key partners in BVP/PIPS, Lack of BVP/PIPS experts, Lack of transparency and accountability respectively.

CF1-CF6: Inability of client to use an Expert Contractor, Stakeholders resistance to accept new innovations, Lack of commitment to implement BVP/PIPS, Lack of encouragement on the part of government, Inadequate facilitation skills and training, Client and Contractors reluctance to self-development and training regularly respectively

Table 6 shows the ranking of the hindering factors as opined by the construction professionals on the measured items of this factors. From the mean score analysis shown in Table 6 the social factor in the construction industry was ranked No.1 with an average mean score value of (4.855) consisting of SF1 –SF4. Political factor ranked No.2 with an average mean score value of (4.811) consisting of PF1 –PF2. Procurement Environment factors ranked No. 3 with an average mean score value of (4.802) consisting of PEF1 –PEF4 and the Cultural factor being ranked No.4 with an average mean score value of (4.770) consisting of CF1-CF6. From this analysis all these four factors indicate a very strong relative influence on hindering the implementation of BVPIPS in the Nigerian construction industry as each has an average mean score value that is greater than 3.5 as indicated by the decision rule of the mean score.

DISCUSSION

From the analysis and finding, four (4) groups of factors were identified to be capable of hindering the implementation of BVPIPS in the Nigerian construction industry. They are explained as follows:

Social Factor

Social factors denote the variety of elements having their roots in the society. These elements are: family, education, political, religious and economic institution. Therefore, when discussing about social factors attention should be on these elements. This is because, social factors can make a pronounced influence on the individual and the society as a whole. It can change the course of society and bring about structural changes (Graf-Vlachy et al., 2018).

Hence, in the procurement society of the construction industry in Nigeria, where contracts are awarded base on the lowest-bid which gives room for informal associations between contractors, public officials, and project teams, the lack of flexibility to accommodate the adoption of BVPIPS and lack of willingness to accept changes and new innovations, form the economic elements because, it brings about fear of losing the incentives that normally comes with the existing state of affairs. These pose a threat to the individuals in authority.

Also, the lack of BVP/PIPS knowledge and the absence of local BVP/PIPS guidelines forms the educational element; absence of these can influence the implementation of BVPIPS in the Nigerian construction industry negatively.

Cultural Factor

Cultural factors are those factors that have their roots in the culture of a particular society. In understanding these factors, it is important to have a clear understanding of culture. Culture, comprises the system of values, attitudes, beliefs, norms, customs, and taboos in society. These systems were created by the people in the society and is being handed over from one generation to the other. In this process of handing over various the value systems, they sometimes go through changes. These can be as a result of various social factors. Therefore, cultural factors are the values, norms, beliefs that people have. In a society, people usually adapt to these factors. These factors are not imposed on the individual in most cases, nevertheless, they are adopted by the individual over the years. Cultural factors commonly prescript's the way of life of the individual and their roles and responsibilities (Juneja, 2019).

The lowest-bid approach of contract award in the Nigerian construction industry lacks transparency and accountability as identified from literatures. This therefore, can create an attitude of resistance to change which discourage the use of any innovation that can change the status quo. Also, if any consideration for change is being brought up there will not be any commitment toward that better change. This alone will hinder the ability to select an expert contractor and trainings, will not be of importance as a result of the resistance to change. Hence, the reason why the inability of client to use an expert contractor, stakeholders' resistance to accept new innovations, lack of commitment to implement BVP/PIPS, lack of encouragement on the part of government, inadequate facilitation skills and training and clients' and contractors' reluctance to self-development and training regularly are classified as the cultural factors in the Nigerian construction industry that can hinder the implementation of BVPIPS.

Procurement Environment Factor

An environment is said to be "the surroundings or conditions in which a person, animal, or plant lives or operates. It can also mean, the setting or conditions in which a particular activity is carried on" (Oxford Living Dictionary, 2019). It is important to note that in conceptualising the environment, it will be helpful to include some view of relationship involving individuals, elements, objects and system influence which in turn, are influenced by their surroundings (Daley & Kent, 2013). Hence, in a procurement environment, it involves stakeholders influence one way or another to determine what needs to be procured and how it should be done. This includes policies, procedures, and processes that are meant

to produce the best possible position to get the goods and services they need on time and, in a cost-effective manner while, making sure appropriate processes are followed.

Therefore, in the context of the Nigerian construction industry, the procurement environment of the lowest-bid is known for lack of transparency and accountability. Similarly, contractors are not involved from the beginning of the projects. Being that, the BVPIPS is a change in paradigm in the construction industry in Nigeria involving BVPIPS experts in the procurement of goods and services could be a drag. Hence, contractors' non-involvement from the beginning of the project, difficulty in the involvement of decision makers and other key partners in BVP/PIPS, lack of BVP/PIPS experts and lack of transparency and accountability are classified as the procurement environmental factors that should be on a look out.

Political Factor

Political factor is defined as an activity related to government policy and its administrative practices that can have an effect on something (Business Dictionary, 2019). From this definition, looking at the public procurement of goods and services in Nigeria, it is mostly done under the control of the government which means that, the government has the total control over any publicly procured good or service. This is done by the use of the Due Process policy in Nigeria. Therefore, any change in the procurement process in the construction industry can pose a threat to some politically influential officers, who enjoy the earnings of most of the contracts awarded base on interest. This can make the government not to appreciate the new approach that will shift the entire procurement system. Hence, the lack of political will of the government and lack of legislation which provides BVP/PIPS application in the construction industry could deter any effort of implementing BVPIPS in the Nigerian construction industry.

CONCLUSION

In order to stabilise the project procurement of the Nigerian construction industry, project risk and control should be transferred to the contractor who must acts in the best interest of the client. This is done using BVPIPS which identifies expertise to minimise the risk of non-performance and increase transparency and accountability. With the knowledge of the risk management orientation of the BVPIPS structure, it disengages relationships, inaccurate expectations, bureaucratic as well as political actions. There are factors that can hinder it from being implemented in the Nigerian construction industry. Hence, these factors were identified and, from the findings of this paper, it indicated that all this hindering factors have a very strong relative influence on hindering the implementation of BVPIPS in the Nigerian construction industry as each has an average mean score value > 3.5 with the social factor, political factor, procurement environment factors and the cultural factor

in the construction industry ranked 1, 2, 3 and 4 respectively. Therefore, in implementing BVPIPS the social factor, political factor, procurement environment factor and the cultural factor in the Nigerian construction industry has been identified as deterrents and should be put under consideration for precautionary measures so as to accommodate innovative approaches such as BVPIPS to improve project delivery in Nigeria. This implies that, if construction practitioners, researchers, academics, industry players, and other stakeholders will really look into these significant issues that can hinder the implementation of PIPS in Nigeria and tackle them properly aiding in implementing PIPS in the Nigerian construction industry, which by helping to optimise project delivery in the industry.

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