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**Prof. Ilemona Adofu**, *FCEnt, FCGPE*

Editor in Chief

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## **CRITERIA FOR MEASURING ORGANISATIONAL PERFORMANCE IN NIGERIA CONSTRUCTION INDUSTRY**

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### **Abstract**

Performance criteria is a principle or standard by which the performance of an organisation may be judged or decided. All the models, frameworks and indices used in measuring organisation performance are based on one criterion or the other. Most of these frameworks have failed due to incomprehensive and non-consideration of criteria that suit the environment where an organisation is based. This study aimed at determining the criteria for measuring organisational performance concerning the Nigerian construction industry. In achieving this aim nine criteria were drawn out from the literature, and the effect of these criteria on organisational performance was determined using multiple regression analysis. Eighty organisations from the federation of the construction industry were used for this study. The targeted respondents were management members of these 85 organisations. 366 questionnaires were distributed and 301 questionnaires were retrieved making 82% of the response rate. The analysis showed a positive and significant effect of eight criteria. These showed that the criteria could be used as a measure of organisational performance. The study concluded that a framework for measuring organisational performance could be developed using the nine criteria. The study recommended a detailed focus on the nine criteria when measuring organisational performance.

**Keywords: Construction, Criteria, Measuring, Organisation, Performance.**

## **1.0 Introduction**

Construction organisations must identify performance criteria that comprehensively cover all pertinent business model aspects. Some authors have proposed using the original criteria of the Basic Score Card BSC to evaluate the performance of construction organisations (Upadhaya, 2014). However, Lueg (2015) observed that the original BSC ignores developments in industry-specific, social, and natural environments. Some authors have added relevant criteria to the initial criteria of the BSC to evaluate the performance of construction organisations or have replaced existing criteria of the original BSC with new ones (Fonseca, 2022). EFQM Excellence model is structured around nine essential criteria, which can be divided into ‘enablers’ and ‘results. Five criteria are enablers, and the other four are results (Fonseca, 2022). Criteria like leadership, strategy, people, partnerships, resources, processes, products, and services are enablers, while the results are people, customers, society, and key results (EFQM, 2019). The Excellence Model provides nine weighted criteria and gives more details of weighted sub-criteria for each criterion (Fonseca, 2022). The five criteria under ‘enablers’ have five sub-criteria, while the criteria under ‘results’ have two sub-criteria. Details of all the nine criteria and their sub-criteria are shown in Table 1.

The enablers’ criteria cover what an organisation does (how the organisation is run and operated). At the same time, the results concentrate on what is seen to be achieved by all those who have an interest in the organisation and how achievement is measured and targeted (Akinradewo *et al*, 2019). Enablers generate results, and feedback helps improve enablers and the relationships between the enablers and the results criteria strengthen the model ((Aldarmaki & Yaakub, 2022; Fonseca, 2022). The model is based on the premise that excellent results concerning key results, customers, people and society are achieved through leadership-driving strategy, delivered through people, partnerships and resources and processes, products and services (Fonseca, 2022).

The model has 32 sub-criteria detailing the scope and application of the model, each sub-criterion includes several guiding areas, which are neither prescriptive nor exclusive. It is necessary to point out that several sub-criteria handles many of those areas in parallel (EFQM, 2019). The reason for this is the objective of analysing a reality (the organisation) from different points of view or reference perspectives, which compose the global existence of the

organisation (Castilla, 2002; Camileri, 2021). The principles of EFQM were one of the principles that underpinned this research, these criteria were developed and improved on using other researchers' views highlighted in the preceding sections.

This research adopted the criteria stated in the basic scorecard BSC and EFOM excellence. Based on the above criteria, the adoption is in line with Björklund and Forslund (2013), that observed that operational performance criteria should comprise the customer, people, processes and resources, financial and business results perspectives with a range of measures and sub-measures on each area as quality of work, achievement of time scales, the standard of communication, impact on society and good practice for customer view; employee satisfaction, employee involvement, training and development, safety for people view; target zero time delays, work won on value, criteria and waste efficiency for processes and resources view; Risk management, return on capital and profitability for financial perspective; market value, growth, project site contribution for business results view.

Akinmoladun (2015) has mentioned that business performance scorecards also should be comprised of other critical areas of success in construction. The vital areas like innovation, partnering, supply chain management, teamwork, and leadership would lead them to become a world-class construction organisation (Fonseca, 2022).

According to Baird (2017), most international construction organisations use performance indicators such as cost predictability, time predictability, defects, accidents, number of employee suggestions implemented, number of continuous improvement projects completed, number of ISO 9001 non-conformities, plant breakdown, number of customer complaints, energy consumption rate, number of reportable environmental incidents, in benchmarking the organisation's performance.

The report by Construction Task Force in London introduced five fundamentals to the construction process; namely, leadership, focus on customers, integration of the process and the team around the product, quality-driven agenda and commitment to people (Ercan and Koksal, 2016). It is also recommended that the industry put in place a means of measuring progress towards its objectives and targets (Lueg, 2015). Key performance

indicators (KPIs) currently being used in the UK construction industry can be effectively used by clients and supply chain organisations for benchmarking against best practices within or outside the construction industry (Ercan &Koksal, 2016; Bingol & Polat, 2019).

## **2.0 Constituents of Organisational Performance Criteria in The Construction Industry**

Performance criteria are compilations of data measures used to assess the performance of a construction operation (Meharalian *et al.*, 2017). In consideration of criteria, there is a need to put the available frameworks into consideration. Each framework has its criteria for measuring performance; the summarised criteria commonly used by these frameworks are further explained below.

### **2.1 Leadership criteria (LDES)**

According to Akinradewo *et al.* (2019), leadership is a crucial element in the organisational behaviour landscape, whereby it is one of the flexible impacts of individual and organisational interactions. Its role in generating the outcomes of any project is undeniably vital as different leadership styles, as identified in the research, will yield different results when subjected to various circumstances (Fonseca, 2022). For example, Ibrahim and Daniel (2019) have delineated leadership's role as an appropriate tool in motivating employees towards upgraded growth and development. In contrast, organisational performance describes an organisation's capacity to attain specific aims and goals, including excellent financial outcomes, high organisational profits, and quality product manufacturing via effective strategic methods (Longe 2008; Dastana 2020). In specific conditions, leadership styles can achieve accomplished organisational success despite followers getting fewer rights than those under the leadership (Aldarmaki & Yaakub, 2022).

In general, discourses on the correlation between leadership styles and performance are abundant by different researchers. Prior works have revealed the unique link between leadership styles and organisational performance (Dastane, 2020). Many pieces of literature have proved that leadership styles can improve organisational performance; also they have confirmed that there is a positive relationship between leadership styles and organisational

performance (Longe, 2014; Hamzah *et al.*, 2018; Alquadah *et al.*, 2018; Ibidunni *et al.*, 2022). Many have recommended leadership style as a criterion for measuring organisational performance.

Flexibility in leadership enables the organisation to anticipate and react promptly to ensure the ongoing success of the organisation (Akinradewo *et al.* 2019). Below are the fundamental roles of a leader in an organisation, as highlighted by Akinradewo *et al.* (2019);

- a. Leaders develop mission, vision, values, and ethics and act as role models.
- b. Leaders define, monitor, review and drive improvement of the organisation's management system and performance.
- c. Leaders engage with external stakeholders.
- d. Leaders reinforce the culture of excellence with the organisation's people.
- e. Leaders ensure the organisation is flexible and manages change effectively.

According to Ibrahim and Daniel (2019), leadership is one of the most critical and essential criteria for measuring organisation performance in the construction industry. Ibrahim and Daniel (2019) emphasised that achieving organisational performance depends mainly on the type of leadership style that organisations adopt. This is because leadership is one tool to attain organisational goals and objectives. Therefore, Ibrahim and Daniel (2019) recommended that every organisation should, as the issue of importance, ensure getting the right leader that will staff their organisation; to achieve their set goals/objectives, which is effective organisational performance.

## **2.2 Society, Customer And Stakeholders' Results and Focus (SCSF)**

Stakeholders; Fonseca *et al.*, (2021) described stakeholders as "those entities that represent a part of the microenvironment of an organisation that could manifest certain interest's indirect relations with a publicly held company". Stakeholders, therefore, have something to gain or lose through the outcomes of some organisation's activities (Napitupulu, 2018). Hence they depend on organisations to fulfil their own goals, and, in turn, the organisation depends on them to achieve its objectives (Fonseca *et al.*, 2021). Stakeholders exist at various organisational levels, and the choice of the ones whose expectations are to be fulfilled depends significantly on the organisation's vision and mission, with the values of its management (Ibidunni *et al.*, 2022). Therefore,

each company could have its own unique set of stakeholders, as depicted in. Still, the typical ones for any organisation include the society wherein the organisation operates, with its customers, investors/shareholders, government, owners, suppliers, creditors and employees. Shareholders and owners can be said to have the most significant influence on any organisation's performance because they are the main financiers and can influence the success of any strategy adopted by the organisation (Baah et al., 2021).

Customer Results: Hanaysha and Mehmood (2022) recommended customer results as one of the criteria for determining a successful organisation, and organisations can only be said to perform if they achieve a positive relationship with their customers. Slogan 2022 argued that managers should make decisions to take account of the interests of all stakeholders in organisations (including not only financial claimants but also employees, customers, communities, governmental officials and, under some interpretations, the environment, terrorists and blackmailers). Sinng and Misra (2021) argued that an organisation could not maximise profit if it ignores the interest of its customer; this is why a Balanced Scorecard considers society, stakeholders, and customers when measuring the performance of an organisation.

### **2.3 Partnerships And Supplier Management Relation (PSMR)**

Wang et al. (2021) recommended that there is a need for organisation managers to develop the capabilities of their people and promote fairness and equality. They are to care, communicate, reward, and be recognised in a way that motivates people, builds commitment, and enables them to use skills and knowledge for the organisation's benefit. Akin *et al.* (2022) emphasised that organisations seek to recruit the best human cadres to manage their resources effectively. Whether they are directly involved in the construction activities, for example, labourers, engineers, and project managers, or engaged in supporting activities, for example, senior managers, project coordinators, or contract administrators. Camilleri (2021) concluded that how a wish organisation plans and manages external partnerships, suppliers, and internal resources to support strategy and policies and the effective operation of processes is a strong determinant of how the organisation performs.

#### **2.4 Processes Management (PRCM)**

Organisation designs, manage and improve processes, products and services to generate increasing value for customers and stakeholders. This has been suggested as an essential criterion to measure organisation performance (Ghafoor *et al.* 2022; Harsanto *et al.* 2022).

#### **2.5 Information and Analysis Criteria (IFAS)**

Investment in information management has positively influenced organisational performance, various research has studied how information and analysis impact an organisation's performance Moradi *et al.*,2022; Rochmatullah *et al.*, 2022; Rangsungnoen 2022 and Ghafoor *et al.* 2022). Moradi *et al.*,2022 found that investment in information management has positively influenced organisational performance. The study by Lee *et al.* (2022) emphasizes that managing information as an essential resource will help to improve organisational performance by controlling the creation and growth of data, reducing operating costs, improving efficiency and productivity and safeguarding vital information. All these will eventually give organisations a competitive advantage (Alkarean *et al.*, 2022).

#### **2.6 Strategic and Innovation Management (STIM)**

An innovation strategy should align with an organisation's mission, vision, goals, and objectives (Harsanto *et al.*, 2022). According to Moradi *et al.*, 2022 innovation strategy is an organisation's guidelines about when and how it should selectively abandon the past and change its corporate strategy and objectives to focus on future business. Furthermore, Rochmatullah *et al.* (2022) opined that an organisation's philosophy and behaviour are directed towards comprehending the current and future needs of the market and responding to them. Ghafoor *et al.* (2022) argued that for better performance, distance should not be a barrier between organisations and their customers and competitors (Lee *et al.*, 2022). In supporting the above findings, Rochmatullah *et al.* (2022) also averred that organisations that intentionally concentrate on the market as the source of their innovation strategy will learn better and have the edge over their competitors which is the main focus and measure of organisational performance.

#### **2.7 Learning And Knowledge Management (LKDM)**

Several types of research present a positive relationship between knowledge management and innovation. For instance, Alkarean *et al.*, (2022) acknowledged that knowledge management strongly affects an organisation's innovation capacity. Organisations can internally acquire knowledge through explicit learning from existing documents or the tacit knowledge of their people confirming a positive relationship between knowledge acquisition and innovation. According to Byukusenge *et al.* (2017), there was a significant positive nexus between knowledge acquisition and technological innovation (i.e. product and process innovation). Furthermore, Moradi *et al.*, (2022) established an important positive relationship between knowledge acquisition and organisational performance. Another study by Ghafoor *et al.* (2022) also showed that knowledge management practices indirectly affect organisational performance via innovation. These above studies showed that learning and knowledge management has a significant effect on organisation performance but none has established this as a criterion that could be used to measure organisational performance this is what this study intends to do.

## **2.8 People and Resource Management (PRCM)**

Literature has been published on the relationship between resources and capabilities and organisational performance in the construction industry. These studies demonstrated that resources and capabilities positively link organisational performance and offer competitive advantages (Oyewobi *et al.*, 2016; Tripathi & Jha, 2017; Igbal *et al.*, 2019). Resources and capabilities are found to positively impact organisational performance in various ways, such as improving internal performance, matching the base of help with the fluctuating environments, and creating changes in the market (Singh & Misra, 2021).

Tripathi and Jha, (2017) examine the relationship between learning orientation and organisational business performance and found that the focus on learning was positively and significantly related to the company's organisational performance. Furthermore, Mahmoud *et al.* (2016) show that learning orientation significantly impacts innovation that mediates business performance in a developing country's context. Learning-oriented companies tend to reduce administrative costs using high technology and new communication channels. The study used people resource and process management as one of the criteria based on the authors' views and findings above.



## **2.9 Project and Business Results Criteria (PJBR)**

Project and business results are measures of the product and operational performance of an organisation, results demonstrate the quality and value of products and services that lead to customer satisfaction and engagement (Soewin & Chinda 2022). The performance of organisations is often judged on financial results, but these are outcomes rather than outputs. Financial measures are share price, dividends, gross margins, net profit, turnover, return on equity, and return on net assets. These are only part of the picture, and many standard ratios are used to evaluate an organisation's overall financial condition, if products and services satisfy customers in a manner that meets the other stakeholders' needs, it will have a positive effect on the financial results of an organisation (Soewin & Chinda 2022; Khalfan *et al.*, 2022; Moradi *et al.*, 2022).

## **2.10 Financial and non-financial performance criteria**

Specific criteria must be examined when planning and choosing suitable criteria to measure an organisation's performance. These must be selected based on what organisations want to achieve as their objectives (Baird, 2017). They must make comparisons with other organisations in the same business and explain clearly the purpose of each performance criterion selected. The requirements should be established through discussions with people involved in the industry, for example, customers, employees and managers (Bakotic, 2016).

In earlier performance measurements, organisations tended to measure their performance by looking at financial aspects or measures, such as return on investment (ROI), sales per employee and profit per unit production, profit margins, turnover of stock, debt to equity ratio and cash flow (Moradi *et al.*, 2022). The aspect of finance has been described by Moulin (2017) and Baird (2016) as a traditional performance measurement. However, financial measures have been criticised for being short-term indicators, being too historical and backwards-looking, encouraging dysfunctional behaviours and considering the development of intangible assets such as employee capabilities and customer satisfaction (Moradi *et al.*, 2022). Being historically focused means they measured only what had happened and not what will happen in the future (Mehralian *et al.*, 2017).

Financial alone is unlikely to be the most efficient means to motivate employees. Financial information is lagging because it describes the outcome of managerial actions or decisions after they occur by at least one reporting period (Lueg, 2015). Md Asrul (2019) agreed that financial measures alone are no longer sufficient and suitable for understanding performance in a dynamic and challenging business environment. It does not reflect performance in the new economy, which is in the global economy. Organisations must move beyond financial performance indicators to consider non-financial measures contributing to long-term value creation (Baird, 2017). Quality, speed, flexibility, and cost have emerged as the three most competitive attributes (Nuru and Ibrahim, 2017). Managers need current and up-to-date non-financial information to take better actions or decisions (Nnadi, 2015).

Parmenter (2015) has listed the following reasons why financial measures have been criticised as a criterion for measuring the performance of an organisation:

- i. Encourages short-termism, for example, the delay of capital investment.
- ii. Lacks strategic focus and fails to provide quality, responsiveness and flexibility data.
- iii. Facilitates local optimisation, for example, ‘manufacturing’ inventory to keep people and machines busy.
- iv. Encourages managers to minimise the variances from standard rather than seek to improve continually.
- v. Fails to provide information on what customers want and how competitors are performing.
- vi. The financial measure is concerned with the cost of elements and tries to quantify performance solely in monetary terms. Still, many enhancements are difficult to quantify monetarily, such as lead-time reduction, quality improvements and customer service.
- vii. Financial reports are usually produced monthly and are the results of decisions made one or two months previously.
- viii. Financial measures have predetermined inflexible formats used across all departments, ignoring that a department may have unique characteristics and priorities.

Therefore, financial performance measures should be supplemented or replaced by non-financial measures because they are more informative of

employees' actions and can improve contracting. Yu *et al.* (2017) concluded that both financial and non-financial aspects are needed and are essential in identifying an organisation's performance. The need to adopt a balanced range of financial and non-financial performance measures is now widely accepted this is why this study evaluated the criteria that could be used to measure organisation in the construction industry.

### **3.0 Methodology**

The study employed exploratory research and quantitative research, the is because the study was only interested in determining the organisational variables as a means of improvement to organisational performance. The population consists of all the management members of the Federation of Construction Industry in Nigeria FOCI. The purposive sampling technique was adopted and Eighty-five (85) organisations practising in Nigeria were sampled with a population of 625 management staff; the sampling size was calculated using the formula suggested by Yamane, 1973 sighted in Taherdoost (2017). Using the above formula, a sample size of 244 was obtained. 50% of the value was added following the recommendation of Taherdoost (2017) to cover the non-response number; therefore, the new adjusted sample size used for the research was 366 for the questionnaires.

The questionnaire was closed-ended and structured that was based on the questions generated from the literature; these questions were scaled using the 5 – point Likert scale of 1 – 5 (where: 1 Not Significant, 2 Low Significant, 3 Significant, 4 High Significant and 5 Very High Significant) this is concerning the research hypothesis.

Three hundred and sixty – six (366) questionnaires were distributed among the management members of eighty-five (85) construction organisational in the study area and 301 were retrieved making 82% of the response. The questionnaire was structured into 2 sections: section A covered respondents' profiles and questions related to the respondents' backgrounds and organisations while section B covered queries drawn out for the objective using the findings from the literature.

Section A of the questionnaire was analysed using percentiles while section B was analysed using Multiple Regression Analysis MRA, the existing literature provided strong evidence that certain variables could be expected to be strong predictors of organisational performance, and the data analysis

for regression was conducted using IBM SPSS statistics 26 and Microsoft excel.

#### 4.0 Results and Discussion

The response rate is shown in figure 1. three hundred and sixty – six (366) questionnaires were distributed based on the sample size calculated. Out of this number, three hundred and (301) questionnaires were retrieved. This showed an 82% response rate which is high and adequate for the research.

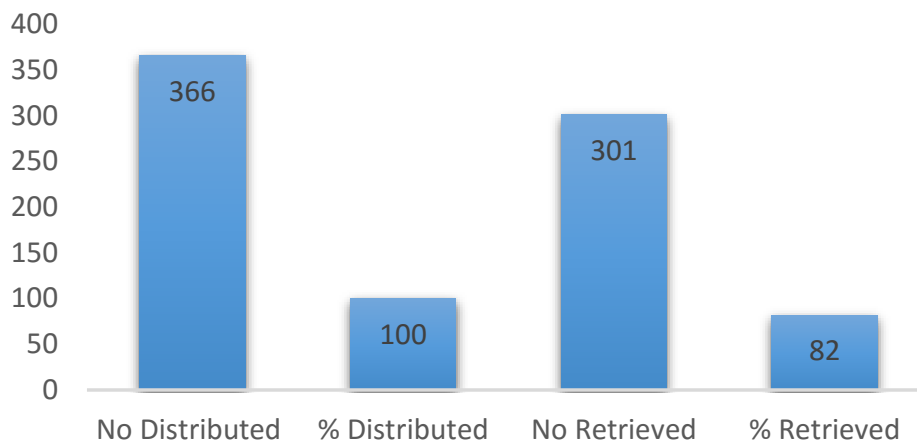


Figure 1. Response Rate

**Source: Researcher’s Analysis of Data (2021)**

Table 2 shows the presentation and analysis of Section A of the questionnaire; this was the profile of the respondents and some basic questions concerning the organisations practising performance measurement. The use of frequency distributions and percentile analysed this.

Table 1 shows that most of the respondents work in an organisation involved in contracting and consulting; the figure was as high as 66%, while those who are either for contracting and consulting were 28% and 5%, respectively. These findings are in line with *Ibidunni et al. (2022)*, which found that most of the construction organisations practising in Nigeria are into both contracting and consulting. The respondents used for this research were of great experience; this is shown in Table 1; the respondents with twenty years above have a high percentage of 62%. This gave them confidence that most of the respondents were eligible because it was delivered from their wealth of experience of over 20 years.

**Table 1. Demography of Respondents and Organisations**

	Frequency	Percentage
<b>Type of the Organisation of the Respondents</b>		
Contracting	85	28
Consulting	16	5
Both	200	66
Total	301	100
<b>Academic Qualification the Respondents</b>		
HND/B.SC/B.TECH	198	66
M.SC/M.TECH/M.BA	98	33
PhD	5	2
Total	301	100
<b>Professional Qualification of the Respondents</b>		
QSRBN	23	8
CORBON	27	9
ARCON	43	14
CORREN	55	18
ICA/ANA	55	18
NIM	52	17
Others	46	15
Total	301	100
<b>Respondents' Years of Experience in the Construction Industry</b>		
≤ 5 Years	10	3
6 - 10 Years	53	18
11 - 15 Years	134	45
16 - 20 Years	42	14
Above 20 Years	62	21
Total	301	100

Source: Researcher's Analysis of Data (2021).

#### 4.1 Testing of the hypothesis

***H1: There is no significant relationship between organisational performance criteria and organisational performance***

In testing the above hypothesis six (9) main constructs were used, and each main construct has sub-constructs which range from two to five. The total sub-constructs were thirty-two (32). This number was arrived at after factors loading has eliminated some of these sub-constructs. To determine the relationship between the nine criteria in the construct and performance criteria a multiple regression analysis was run using the data from the respondents. The output of these results was tabulated in Table 5.7. this multiple regression

was performed with the nine criteria as predictors and organisational performance as dependent factors in multiple regression analysis (appendix I). A predictive model was generated. The subsequent multiple linear regression (MLR) was fitted, and the related regression coefficients were statistically tested to see if they could be claimed to be significantly non-zero given the available information in the surveyed data.

$$\begin{aligned}
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{IFAS1}^{(OP)}(IFAS) + \beta_{IFAS2}^{(OP)}(IFAS) + \beta_{IFAS3}^O(IFAS) + \varepsilon \\
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{LDES1}^{(OP)}(LDES) + \beta_{LDES2}^{OP}(LDES) + \beta_{LDES3}^{(OP)}(LDES) + \\
 &\beta_{LDES4}^{(OP)}(LDES) + \beta_{LDES5}^{(OP)}(LDES) + \varepsilon \\
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{LKDM1}^{(OP)}(LKDM) + \beta_{LKDM2}^{(OP)}(LKDM) + \beta_{LKDM3}^{OP}(LKDM) + \\
 &\beta_{LKDM4}^{OP}(LKDM) + \varepsilon \\
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{PSMR1}^{(OP)}(PSMR) + \beta_{PSMR2}^{(OP)}(PSMR) + \varepsilon \\
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{PCRM1}^{(OP)}(PCRM) + \beta_{PCRM2}^{(OP)}(PCRM) + \varepsilon \\
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{PRCM1}^{(OP)}(PRCM) + \beta_{PRCM2}^{(OP)}(PRCM) + \beta_{PRCM3}^{(OP)}(PRCM) + \varepsilon \\
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{PJBR1}^{(OP)}(PJBR) + \beta_{PJBR2}^{(OP)}(PJBR) + \beta_{PJBR3}^{(OP)}(PJBR) + \beta_{PJBR4}^{(OP)}(PJBR) \\
 &+ \varepsilon \\
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{SCSF1}^{(OP)}(SCSF) + \beta_{SCSF2}^{(OP)}(SCSF) + \beta_{SCSF3}^{(OP)}(PJBR) + \beta_{SCSF4}^{(OP)}(SCSF) \\
 &+ \varepsilon \\
 Y_{(OP)} &= \beta_0^{(OP)} + \beta_{STIM1}^{(OP)}(STIM) + \beta_{STIM2}^{(OP)}(STIM) + \beta_{STIM3}^{(OP)}(STIM) + \beta_{STIM4}^{(OP)}(STIM) \\
 &+ \varepsilon
 \end{aligned}$$

Model	Regression Weight	Beta Coefficient	R Square	F	T Value	P-Value	Com	Decision
H1 <sub>1</sub>	IFAS ↔ OP							
	IFAS 1 ↔ OP	0.383	0.310	68.615	8.864	0.000	SS	Accept
	IFAS 2 ↔ OP	0.105	0.310	68.615	2.170	0.000	SS	Accept
	IFAS 3 ↔ OP	0.212	0.310	68.615	4.634	0.000	SS	Accept
H1 <sub>2</sub>	LDES ↔ OP							
	LDES 1 ↔ OP	0.077	0.160	17.428	1.627	0.000	SS	Accept
	LDES 2 ↔ OP	0.108	0.160	17.428	2.750	0.000	SS	Accept
	LDES 3 ↔ OP	0.008	0.160	17.428	0.125	0.000	SS	Accept
	LDES 4 ↔ OP	0.130	0.160	17.428	2.159	0.000	SS	Accept
	LDES 5 ↔ OP	0.191	0.160	17.428	3.339	0.000	SS	Accept
H1 <sub>3</sub>	LKDM ↔ OP							
	LKDM 1 ↔ OP	0.208	0.391	71.905	5.015	0.000	SS	Accept
	LKDM 2 ↔ OP	0.223	0.391	71.905	4.956	0.000	SS	Accept
	LKDM 3 ↔ OP	0.120	0.391	71.905	2.473	0.000	SS	Accept
	LKDM 4 ↔ OP	0.283	0.391	71.905	6.281	0.000	SS	Accept
H1 <sub>4</sub>	PSMR ↔ OP							
	PSRM1 ↔ OP	0.170	0.091	23.085	3.144	0.000	SS	Accept
	PSRM 2 ↔ OP	0.170	0.091	23.085	3.150	0.000	SS	Accept
H1 <sub>5</sub>	PCRM ↔ OP							
	PCRM1 ↔ OP	0.288	0.163	42.411	6.098	0.000	SS	Accept
	PCRM2 ↔ OP	0.195	0.163	42.411	4.141	0.000	SS	Accept
H1 <sub>6</sub>	PRCM ↔ OP							
	PRCM 1 ↔ OP	0.304	0.321	71.493	6.562	0.000	SS	Accept
	PRCM 2 ↔ OP	0.136	0.321	71.493	2.706	0.000	SS	Accept
	PRCM 3 ↔ OP	0.251	0.321	71.493	5.201	0.000	SS	Accept
H1 <sub>7</sub>	PJBR ↔ OP							
	PJBR1 ↔ OP	0.022	0.012	1.375	0.310	0.241	NS	Rejected
	PJBR2 ↔ OP	0.054	0.012	1.375	0.815	0.241	NS	Rejected
	PJBR3 ↔ OP	0.058	0.012	1.375	0.779	0.241	NS	Rejected
	PJBR 4 ↔ OP	0.036	0.012	1.375	0.569	0.241	NS	Rejected
H1 <sub>8</sub>	SCSF ↔ OP							
	SCSF 1 ↔ OP	0.053	0.332	57.134	1.100	0.000	SS	Accept
	SCSF 2 ↔ OP	0.108	0.332	57.134	2.180	0.000	SS	Accept
	SCSF 3 ↔ OP	0.210	0.332	57.134	4.225	0.000	SS	Accept
	SCSF 4 ↔ OP	0.019	0.332	57.134	7.020	0.000	SS	Accept
H1 <sub>9</sub>	STIM ↔ OP							
	STIM 1 ↔ OP	0.134	0.402	74.344	3.014	0.000	SS	Accept
	STIM 2 ↔ OP	0.172	0.402	74.344	3.522	0.000	SS	Accept
	STIM 3 ↔ OP	0.229	0.402	74.344	4.681	0.000	SS	Accept
	STIM 4 ↔ OP	0.257	0.402	74.344	5.298	0.000	SS	Accept

It was deduced from model 1 that the degree to which the criteria predicted the organisational performance is Table 5.7. The first model information and analysis criteria (IFAS) had a high predictive power of 31% ( $R^2 = 0.31$ ; F change = 68.61; T value of 8.864; with a P-value of 0.000). The result of the model showed that IFAS had a positive and highly statistically significant effect on organisational performance, with a beta coefficient of 0.383. Considering the MRA results, all eight criteria have a significant relationship with a p-value of 0.000. Project and Business Results and business results criteria have a predictive power of 0.1 % ( $R^2 0.01$ ; F 57.13; T value 0.310 and the P value of 0.241). the beta value of the model ranges between 0.022 – 0.058. the variable was rejected. Using the result of the MRA eight variables that have significant effects on organisation performance were adopted as the criteria for measuring organizational performance in Nigeria's construction industry

## **Table 2. Regression Results On the Relationship Between Organisation Criteria and Organisational Performance**

Researcher 's field survey, 2022

### **5.0 Conclusion**

The regression analysis was conducted to determine the significant relationship and effect between the criteria Leadership criteria, Society, Customer And Stakeholders' Results, People Partnerships And Resources, Processes, Products and Services, Information And Analysis Criteria, Strategic and Innovation Management, Learning And Knowledge Management, People Resource and Process Management, Project and Business Results Criteria, and the performance of an organisation based on the respondents' views. There was a significant relationship between the eight out of the nine criteria and organisation performance. The project and business results has no significant effect but it has a relationship this was shown in the equation. By these findings all the nine criteria were retained. The analysis showed a positive and significant effect of eight criteria this showed that the criteria could be used as a measure of organisational performance. The study concluded that a framework for measuring organisational performance could be developed using the nine criteria. The findings are in line with in the findings of Dastane, 2020; Ghafoor *et al.* 2022 and Harsanto *et al.* 2022, they all recommended some more comprehensive criteria to measure organisational performance in Nigeria.



## 6.0 Recommendations

The study recommended a detailed focus on the nine criteria when measuring organisational performance. A comprehensive model that will include the nine criteria for Nigeria construction industry.

## References

- Akinmoladun O. T. (2015). Performance Evaluation Of Construction Firms In Southwest Nigeria. In: Ogunsemi, D. R, Awodele, O.A, & Oke, A.E (Eds). Akinradewo O., Aigbavboa C. and Oke A. (2019). Performance Benchmarking System for the Nigerian Construction Industry In: Laryea, S. and Essah, E. (Eds) Procs West Africa Built Environment Research (WABER) Conference, 5-7 August 2019, Accra, Ghana, 797-807.
- Aldarmaki, S., & Yaakub, K. B. (2022). Measurements of Organizational Excellence Development of Holistic Excellence Practices for Free Zones in Dubai.
- Alkaraan, F., Albitar, K., Hussainey, K., & Venkatesh, V. G. (2022). The corporate transformation toward Industry 4.0 and financial performance: The influence of environmental, social, and governance (ESG). *Technological Forecasting and Social Change*, 175, 121423.
- Baird, K. (2017). The effectiveness of strategic performance measurement systems, *International Journal of Productivity & Performance Management*, 66(1), 3- 21.
- Bakotić, D. (2016). Relationship between Job Satisfaction and Organisational Performance, *Economic Research-Ekonomska Istraživanja*, 29 (1), 118-130, DOI:10.1080/1331677X.2016.1163946
- Bingol, B.N. and Polat, G. (2019), “Framework for evaluating quality performances of subcontractors: case of Turkish contractors”, *Journal of Construction in Developing Countries*, 25 (1), 163-179.
- Björklund, M. & Forslund, H. (2013). The purpose and focus of environmental performance measurement systems in logistics, *International Journal of Productivity & Performance Management*, 62(3), 230 – 249.
- Camilleri, M. A. (2021). Using the balanced scorecard as a performance management tool in higher education. *Management in Education*, 35(1), 10-21.

- Dastane, O. (2020). Impact of leadership styles on employee performance: A moderating role of gender. *Australian Journal of Business and Management Research*, 5(12), 27-52.
- EFQM (2019). *The EFQM Model*; EFQM: Brussels, Belgium, 2019; ISBN978-90-5236-845-0
- EFQM. EFQM 2020 Model—EFQM. 2020. Available online: <https://www.efqm.org/index.php/efqm-model/download-your-free-short-copy-of-the-efqm-model/> (accessed on 20 May 2020).
- Ercan, T. & Koksall, A. (2016). Competitive Strategic Performance Benchmarking (CSPB) Model for International Construction Companies, *KSCE Journal of Civil Engineering*, 20(5), 1657-1668.
- Fonseca, L. (2022). The EFQM 2020 model. A theoretical and critical review. *Total Quality Management & Business Excellence*, 33(9-10), 1011-1038.
- Fonseca, L., Amaral, A., & Oliveira, J. (2021). Quality 4.0: the EFQM 2020 model and industry 4.0 relationships and implications. *Sustainability*, 13(6), 3107.
- Ibrahim, A. U., & Daniel, C. O. (2019). Impact of leadership on organisational performance. *International Journal of Business, Management and Social Research*, 6(2), 367-374
- Lee, K., Azmi, N., Hanaysha, J., Alzoubi, H., & Alshurideh, M. (2022). The effect of the digital supply chain on organizational performance: An empirical study in Malaysia manufacturing industry. *Uncertain Supply Chain Management*, 10(2), 495-510.
- Longe, O. J. (2014). Leadership style paradigm shift and organisational performance: A case of the Nigerian Cement Industry. *African Research Review*, 8(4), 68-83.
- Lueg, R. (2015). Strategy maps: the essential link between the balanced scorecard and action, *Journal of Business Strategy*, 36(2), 34 – 40.
- Mehralian, G., Nazari, J. A., Nooriparto, G. and Rasekh, H. R. (2017). TQM and organisational performance using the balanced scorecard approach, *International Journal of Productivity & Performance Management*, 66(1), 111-125.
- Upadhaya, B. Munir, R. & Blount, Y. (2014). Association between performance measurement systems and organisational effectiveness, *International Journal of Operations & Production Management*, 34(7), 853 – 875.

- Ibidunni, A. S., Mbamali, W., & Olaniyi, K. (2022). Knowledge Management and the Performance of Small and Medium Enterprises in Nigeria. *Covenant Journal of Entrepreneurship*, 5(2).
- Rochmatullah, M. R., Rahmawati, R., Probohudono, A. N., & Widarjo, W. (2022). Is quantifying performance excellence profitable? An empirical study of the deployment of the Baldrige Excellence Measurement Model in Indonesia. *Asia Pacific Management Review*.
- Rangsungnoen, G. (2022). An investigation of mediating factors for export–import business performance excellence: a systems perspective framework for Thailand. *The TQM Journal*, (ahead-of-print).
- Moradi, E., Jafari, S. M., Doorbash, Z. M., & Mirzaei, A. (2021). Impact of organizational inertia on business model innovation, open innovation and corporate performance. *Asia Pacific Management Review*.
- Wang, Y., Peng, X., & Prybutok, V. (2022). The importance of information technology to organizational results within the Baldrige award. *Quality Management Journal*, 29(1), 3-17.
- Wang, H., Khan, M. A. S., Anwar, F., Shahzad, F., Adu, D., & Murad, M. (2021). Green innovation practices and its impacts on environmental and organizational performance. *Frontiers in Psychology*, 11, 3316.
- Harsanto, B. (2022). Technological and Organizational Innovation in Food and Agricultural Firms: Case Studies on MBNQA Recipients. In *Advances in Science and Technology* (Vol. 112, pp. 169-173). Trans Tech Publications Ltd.
- Hanaysha, J. R., & Mehmood, K. K. (2022). An Exploration of the Effect of Customer Relationship Management on Organizational Performance in the Banking Sector. *International Journal of Customer Relationship Marketing and Management (IJCRMM)*, 13(1), 1-16.
- Ghafoor, S., Grigg, N. P., Mathrani, S., & Mann, R. (2022). A bibliometric and thematic review of business excellence journal papers from 1990 to 2020. *Total Quality Management & Business Excellence*, 33(3-4), 355-387.
- Camilleri, M. A. (2021). Using the balanced scorecard as a performance management tool in higher education. *Management in Education*, 35(1), 10-21.

- Akın A. M., Suurmond, R., Luzzini, D., & Krause, D. (2022). Order from chaos: A meta- analysis of supply chain complexity and firm performance. *Journal of Supply Chain Management*, 58(1), 3-30.
- Baah, C., Opoku-Agyeman, D., Acquah, I. S. K., Agyabeng-Mensah, Y., Afum, E., Faibil, D., & Abdoulaye, F. A. M. (2021). Examining the correlations between stakeholder pressures, green production practices, firm reputation, environmental and financial performance: evidence from manufacturing SMEs. *Sustainable Production and Consumption*, 27, 100-114.
- Singh, K., & Misra, M. (2021). Linking corporate social responsibility (CSR) and organizational performance: The moderating effect of corporate reputation. *European Research on Management and Business Economics*, 27(1), 100139.
- Igbal, A., Latif, F., Marimon, F., Sahibzada, U. F. and Hussain, S. (2019). "From knowledge management to organisational performance: modelling the mediating role of innovation and intellectual capital in higher education", *journal of enterprise information management*, 32(1) 36 – 59. <https://doi.org/0.1108/JEIM - 04 2018 - 0083>
- Oyewobi, L. O., Windapo, A. O., Rotimi, J. O. B., & Jimoh, R. A. (2017). Determining strategic clusters and performance of construction organisations in South Africa. *International Journal of Construction Management*, 1-11.
- Oyewobi, L. O., Abimbola, W. R. & Olabode, B. J. (2015). Measuring strategic performance in construction companies, *Journal of Facilities Management*, 13 (2): 55-65
- Tripathi, K. K., & Jha, K. N. (2017). Determining Success Factors for a Construction Organisation: A Structural Equation Modeling Approach. *Journal of Management in Engineering*, 34(1), 04017050.