



# THE NIGERIAN INSTITUTION OF PROFESSIONAL **ENGINEERS AND SCIENTISTS**

NATIONAL CENTRE FOR ENERGY, ENERGY COMMISSION OF NIGERIA

# **BOOK OF PROCEEDINGS**



theme:

# SCIENCE AND TECHNOLOGY

TOWARDS INDUSTRY 4.0 REVOLUTION



15TH - 17TH FEB 2023



9:00AM DAILY

VENUE: NATIONAL CENTER FOR ENERGY AND ENVIRONMENT, UNIVERSITY OF BENIN

CHIEF HOST
PROF. D.I. IGBINOMWANHIA
HEEE (FEBROY COMMISSION OF HICERIA)

DR. O.O IGHODARO

DR. SHIVAN CHETTEY

PROF. IKUOBASE EMOVON



www.nipesjournals.org.ng



# **CONTENTS**

TOPIC & AUTHOR(S)	PAGES
DEVELOPMENT OF SOLID WASTE MANAGEMENT STRATEGY FOR AUCHI POLYTECHNIC NEW STAFF QUARTERS, AUCHI, EDO STATE, NIGERIA.	
A. Rawlings, S. Seghosime	1-11
PERFORMANCE EVALUATION OF CHICKEN LITTERS BIOCHAR IN DIRECT CARBON FUEL CELL	
Ejedegba, G.O., Adeniyi O. D., Otaru A.J., Adeniyi M.I., Muhammed A. A., Yusuff A.S.	12-21
CHARACTERIZATION, KINETICS, AND THERMODYNAMICS STUDIES OF OIL EXTRACTION	
FROM PALM KERNEL	
Charity Aghariagbonse Osagiede, George Chidozie Nwagu	22-32
SYNTHESIS OF HIERARCHICAL ZEOLITE Y FROM ALOJI KAOLIN	
R. A. Usman, A. S. Kovo, A. S. Abdulkareem, M. U Garba.	33-36
PERFORMANCE EVALUATION OF 11KV GOVERNMENT RESERVE AREA (G.R.A), ETETE FEEDER IN BENIN ELECTRICITY DISTRIBUTION COMPANY(BEDC), BENIN CITY, EDO STATE, NIGERIA	
R.O. Edokpia, O.C.Onuigbo	37-47
DEVELOPMENT OF A ZIGBEE TYRE PRESSURE MONITORING SYSTEM SENSOR UNIT WITH AN EFFICIENT BATTERY SCHEDULING ALGORITHM	
Kingsley Okeoghene Enalume, Kingsley Osaro Ogbeide	48-63
PRODUCTION, OPTIMIZATION OF BIODIESEL FROM DESERT DATE SEED OIL VIA TRANSESTERIFICATION	
S. O. Ohile, A. A. Aboje, H. M. Uthman, A. D. Dirisu, Ibrahim Yusuf	
	64-70



www.nipesjournals.org.ng



# THE EFFECT OF TECHNICAL AND VOCATIONAL EDUCATION ON ECONOMIC DEVELOPMENT AND SOCIAL MOBILITY IN

KATSINA STATE, NIGERIA

Jamilu Saleh, Hassan Usman

466-472

ON MAGNETIC MOMENT AS A NOVEL FEATURE IN THE DIRECT PRODUCTION OF MAGNETIC MONOPOLES AT THE LARGE HADRON COLLIDER (LHC) VIA DRELL-YAN PHOTON SUB-CHANNEL INTERMEDIATION

D. Dosu, O. Ebomwonyi

473-489

PRISM METHODOLOGY AND PROJECT SUCCESS: A STAKEHOLDERS' PERSPECTIVE

Musa Mohamed, Jato Peter Igorigo

490-500

ANAEROBIC CO-DIGESTION OF PALM OIL EFFLUENT AND FOOD WASTE

Ejiroghene Kelly Orhorhoro, Silas Oseme Okuma, Samuel Batet

501-511

OPTIMIZATION OF BIOGAS YIELD BY THE COMBINATION OF ALGAL BIOMASS AND FOOD WASTE

Ejiroghene Kelly Orhorhoro, Joel Oluwayomi Oyejide, Tega Emmanuel Erokare

512-521

DESIGN AND FABRICATION OF AN ELECTRIC BICYCLE FROM RECYCLED MATERIALS

Umukoro Emmanuel Oghenerukevwe, Onobun Osegiele Emmanuel, Avweromre Ogheneruemu Isaiah, Okhueleigbe Oselu Divine, Godspower Linus Sunday

522-535

DESIGN AND INSTALLATION OF A CAPACITY LIMITING RFID ACCESS CONTROL SYSTEM

Moluno Richie Chukwunalu, Oyakhilome Lordson Osenegame, Ika Kevwe Ntow, Fidelis Endurance David, P.O Olagbegi

536-544

DESIGNING SMART-INTELLIGENT SYSTEM FOR TEACHING-LEARNING 6-11 YEARS ROBOTIC PROGRAMMING

Ibuomo R. Tebepah

545-554



www.nipesjournals.org.ng



# PRISM METHODOLOGY AND PROJECT SUCCESS: A STAKEHOLDERS' PERSPECTIVE

Musa Mohamed<sup>1</sup> and Jato, Peter Igorigo<sup>2</sup>

Department of Project Management Technology, School of Innovative Technology, Federal University of Technology, Minna, Niger State, Nigeria Musamoh@futminna.edu.ng¹ digijat@yahoo.com²

#### Abstract.

In business, success is the only language stakeholders understand. This may be due to investment of scarce resources with the anticipation that the business or project will deliver the expected values and benefits to meet strategic business objectives. Traditionally, project success is measured with respect to the Iron Triangle, but the question is: is the concept still effective? It does, how do we assess projects whose deliverables are delivering value and benefits, yet cost thrice their original budget and twice their schedule, for instance? How effective is the concept now, with respect to the myriad sustainability challenges around the world? This research therefore, aims to examine PRiSM methodology, an all-inclusive and sustainable methodology, and its impact on project success from the perspective of stakeholders executing projects in Nigeria's tertiary educational sector. The outcome of the study suggests that the PRiSM approach could result in improved collaboration and communication, better project planning and execution and will contribute to a high likelihood of project success. Nevertheless, using sustainable building techniques and materials is one of the main obstacles to adopting the PRiSM approach, along with the need for a cultural shift, lack of understanding about new methodologies and technologies, lack of senior management support, and others. Cost of implementation, complexity, difficulty in measuring success and resistance to change are some of it draw backs. The findings show that professionals need to acquire new skills and retrain in cutting-edge, sustainable techniques and technologies. There is also significant evidence that respondents would use the PRiSM approach if they possess the requisite knowledge and skill. Though this research focused on the construction sector, it opens up opportunities for further studies in other sectors, such as Oil and Gas, Manufacturing, Pharmaceuticals and others. This information could be helpful to project management experts in understanding these sustainability challenges and strategising and seizing opportunities to increase the project success rate while reducing the carbon footprint.

Keywords: PRiSM Methodology, Project Success, Project Performance

#### 1. INTRODUCTION

Projects result in new products, services, or outcomes, and using them could positively or negatively affect people or organisations. As benefits mount, stakeholders become increasingly concerned about the project's success. Project success is the creation of sustainable business value [1,2,3,4,5], through effective project management. It is also the degree to which a project satisfies the sated requirements. On the other hand, according to PMI (2021), project management is guiding the project work to achieve the intended outcome, however, Kerzner FI. (2017), opines successful project management as achieving a continuous stream of project objectives within time, within cost, at the desired performance/technology level, while utilizing the assigned resources effectively and efficiently, and having the results accepted by the customer and/or stakeholders.



www.nipesjournals.org.ng



However, climate change and sustainability requirements appear to have modified the standard concept of project success assessment due to the effects of the deliverables on the environment, and by extension the society and economy. Interestingly, several methodologies and technologies are evolving to enhance project performance; one of such is Sustainable Project Management. According to Silvius, G. (2017), "Sustainable Project Management is the planning, monitoring and controlling of project delivery and support processes, with consideration of environmental, economic and social aspects of the life-cycle of the project's resource, processes, deliverables and effects, aimed at realising benefits for stakeholders and performed in a transparent, fair and ethical manner that includes proactive stakeholder participation". Therefore, in the present equation for project success, the project management methodology (PMM) is a key consideration. The definition by Silvius may have provided the foundation for Green Project Management (GPM), a global organisation advocating for sustainability in project management to create the P5 standard; People, Planet, Prosperity, Process, and Product as the benchmark for attaining sustainability. Each P5 element describe the specific actions a project manager will take to deliver sustainable project in a sustainable manner.

The aim of this paper is to conduct an exploratory study of stakeholders' perception of PRiSM methodology and its impact on project success in tertiary educational institutions in Nigeria, specifically, to investigate stakeholders' opinion of PRiSM methodology, factors affecting the adoption of PRiSM methodology and to determine how PRiSM methodology influences project success. The research is organised into sections; the methodology section explains the method employed by describing the relevant data required, the design strategy employed, the study population, the sample size and the study technique. Finally, the findings and discussion section present a content analysis of the five thematic areas of the study, while the paper concludes with a recommendation for further study.

#### 2. METHODOLOGY

After conducting a desktop literature review to identify the potential project success factors, sixty-eight (68) elements were found which were divided into five groups based on themes. These were encoded into closed-ended questionnaires. The structured questionnaire was organised into two sections, A and B. Section A deals with the respondents' demographic information. In contrast, section B has five thematic parts designed to provide answers to the research questions. For example, in section B, part 1 comprises the conceptual development of PRiSM methodology; Part 2 contains stakeholders' perception of PRiSM methodology; Part 3 includes the factors militating against the adoption of PRiSM methodology; Part 4 includes the impact of PRiSM methodology on project performance; and Part 5 contains project delivery performance. These thematic areas were rated by respondents using a 5-point Likert scale.

#### 2.1. Sources of Data

The Primary data was gathered from the responses through questionnaires obtained from contractors, consultants and other professionals. In contrast, desk-top literature was gathered from books, journals and online sources related to the topic of the study.

# 2.2. Sampling Technique and Sampling Size

The sample size for this study was drawn from professionals in the tertiary education sector. Due to the characteristics of the population, a two-stage sampling technique was used. First, a random





www.nipesjournals.org.ng

sampling procedure was used to select those to whom the research instruments were administered. This was used in selecting the targeted construction professionals that directly execute projects in the tertiary institutions without any biases or loop-sidedness as every professional has every chance of involvement, as applied in the study of Muhammed et al. (2022a).

Cochran's Equation was used to determine the sample size. Random sampling for an undefined population using the Cochran formula in Equation (3.1), where p = 0.5, i.e., the maximum variability at a 95% confidence level. The value of 95% is used because the researcher needs to know the variability in the proportion of the actual users of PRiSM methodology in the construction industry. In Equation (3.1), e is the precision desired for the sample size at  $\pm 5$  per cent, z is the abscissa of the standard curve given as 1.96 and q is represented by (1 - p), which is equivalent to 0.5. Matto et al. (2021), Anosike (2021), and Muhammed et al. (2022a) used the Equation in their works.

Cochran (1963)

$$n_0 = \frac{z^2 pq}{e^2}$$
 (Eqn. 3.1)

Thus

$$n_0 = \frac{1.96^2(0.5 \cdot 0.5)}{0.05^2}$$
 (Eqn. 3.2)

$$n_0 = 384$$

Thus, the Equation calculates the minimum sample size to be 384.

## 2.3. Data Collection Instrument

A close-ended questionnaire was used for this study. As described earlier, the format of the questionnaires, which were aligned to meet the research objectives, has two main parts or sections, A and B. The researcher used this method because it was cheap even when the sample size was large [6,7,8,9,10]. In addition, it frees biases of the interviewer, and respondents had sufficient time to give good answers; thus, the outcome could be steadier and more consistent. Section A deals with the respondents' demographic information, while section B has five thematic parts designed to answer the research questions. These thematic areas are made up of factors to be rated by the respondents using a 5-Point Likert.

## 2.4. Method of Data Analysis

The study employed only descriptive analysis. Descriptive statistics use charts, tables, and mean and standard deviation to describe the magnitude of the respondents' demographic features and the relationship between the variables involved.



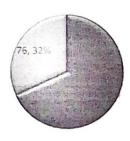
www.nipesjournals.org.ng



#### 3. RESULTS AND FINDINGS

A total of 239 construction professionals (163, 68.2%) were males, while (76, 31.8%) were females. The result implies that there is a gender imbalance which may be due to the challenging nature of construction work.





■ Male ■ Female

Figure 1: Gender of respondents

The age demography shows that (34, 14.2%) were within the age bracket of 20-30 years; (56, 23.4%) were within 31-40 years; (74, 31%) were within 41-50 years; (48, 20.1%) were within 51-60 years; while (27, 11.3%) were 61 years and above. The result implies that the respondents with an age bracket of 31 to 60 years constituted the more significant and active population.



Figure 2: Ages of respondents

The professional demography of respondents was (46, 19.2%) were project managers, quantity surveyors (25, 10.5%); architects (30, 12.5%); engineers (81, 33.9%); site managers (21, 9%); estate surveyors (10, 4%) and urban and regional planners (26, 10.9%). The result indicates that most of the respondents are engineers since they constitute the profession with the most significant number of participants.



www.nipesjournals.org.ng





Figure 3: Professional qualification of respondents

The academic demography shows that (25, 10.5%) hold National Diploma; (68, 28.5%) hold HND; (77, 32.2%) hold a first Degree; (55, 23%) hold Master's while (14, 5.8%) hold PhD. The result reveals that most respondents entered the construction industry after their first degree.



Figure 4: Academic qualification of respondents.

The following sections present the findings of stakeholders' opinions on each of the five thematic areas in which PRiSM methodology could impact the execution of physical infrastructural projects in the Nigeria construction section.

#### 3.1. Factors Affecting PRiSM Methodology Development

Respondents strongly agree that seven factors hinder the development of the PRiSM methodology which are; lack of desire for change (89.5%); inadequacy of innovativeness (75.7%); project managers' insufficient thinking capacity (79.5%); sufficiency in the use of traditional project management methodologies (81.2%); lack of adaptability (81.2%); insufficient research and development (74.5%), and comfortability in the use of traditional project management methods (80.8%). These factors collectively indicate an 80.3% agreement on average that they affect the development of PRiSM methodology, as presented in Table 1.

Table 1: Factors affecting PRiSM methodology development

Factors Affecting PRiSM Methodology	SD	D	I	A	SA
Development					





www.nipesjournals.org.ng

Lack of Desire for Change	5	4	5	11	214
Inadequacy of Innovativeness	20	12	13	13	181
Project Managers Insufficient Thinking	37	4	5	3	190
Capacity					
Sufficiency in the usage of Traditional	5	32	5	3	194
Project Management Methodologies					
Lack of Adaptability	5	4	33	3	194
Insufficient Research and Development	13	16	9	23	178
Comfortability in the usage of Traditional	11	6	6	23	193
Project Management Methodologies					
Total (Percentage)	96	78	76	79	1344
	(5.74%)	(4.66%)	(4.54%)	(4.72%)	(80.33%)
Mean	0.4013	0.3264	0.3179	0.3305	5.6234

## 3.2. Stakeholders' perception of PRiSM Methodology

The perception of stakeholders regarding PRiSM methodology shows that 84.5% strongly agree that they have never heard of PRiSM methodology. 70.7% said they have heard of the methodology, only 37.7% said they know other methodologies. Again, while 44.8% said they hardly use any methodology in their project, 44.8% said they want to use the methodology but need access. 15.6% said they needed help understanding the methodology. However, despite its newness, 84.5% are willing to use it but said they lack knowledge, while 59.4% said they do not like it. 70.7% said they think of it often, and just 37.7% are strongly positive that PRiSM methodology may improve their workflow. In comparison, 85.3% are affirmative that it can improve collaboration and communication, whereas 61.5% think it can assist in better project planning. There is a 58.5% strong agreement that the above factors influence stakeholders' perception of PRiSM Methodology, as indicated in Table 2.

Table 2: Factors affecting stakeholders; perceptions of PRiSM methodology

Stakeholders' Perception of PRiSM Methodology	SD	D	I	A	SA
		<del> </del>	_		
I have never heard about PRiSM Methodology	0	0	0	37	202
I have heard about PRiSM Methodology	18	18	17	17	169
I only know about other Methodologies	149	0	0	0	90
I hardly use any Methodology in my Projects	0	132	0	0	107
I want to use PRiSM Methodology but have no	0	0	132	0	107
access					
I Don't Understand PRiSM Methodology	35	52	17	97	38
I don't like PRiSM Methodology	0	0	0	97	142
I want to try PRiSM Methodology but have no	0	0	0	37	202
knowledge of it			1	200.000	
I think about PRiSM Methodology Often	18	18	17	17	169
I think PRiSM Methodology can improve my	149	0	0	0	90
work		AN SEC			





www.nipesjournals.org.ng

PRiSM Methodology can improve collaboration and communication	0	20	8	7	204
PRISM Methodology can assist in Better Project Planning and Execution	4	40	0	48	147
Total (Percentage)	373 (13.08 %)	280 (9.82% )	191 (6.70 %)	357 (12.52 %)	166 7 (58. 5%)
Mean	1.5606	1.1715	0.799 1	1.4937	6.97 48

# 3.3. Factors militating against the adoption of PRiSM Methodology in the execution of construction projects in the tertiary education sector in Nigeria.

A total of 25 factors were identified militating against adopting the PRiSM methodology. While each factor is necessary, only the top ten factors will be analysed for convenience. As shown in Table 3, 24.3% of the respondents strongly agree that advocacy and awareness are factors militating the adoption of PRiSM methodology. Fifty-nine point four per cent think the company's existence (experience) as a factor, whereas 77.8% said its staff strength in the construction business. Conversely, only 4.2% think the physical structure of the construction firm (organogram) hinders the adoption of the methodology. Again, 53.1% strongly agree that access to affordable tools and applications and the presence of quality construction experts, respectively, could be factors. While 27.2% believe that supportive ICT infrastructure could be a factor, 62.3% attribute it to legislation/legal requirements. Respondents strongly agree that commitment and support from top management (84.5%), and strengthening and implementation mechanism (77%), respectively, could also be factors. Analysing the 25 factors, 50.7% on average strongly agree that these factors contribute to the hindrance of PRiSM adoption, as shown in Table 3.

Table 3: Factors militating against the adoption of PRiSM methodology in the Nigerian tertiary education sector

Factors militating against the adoption of	SD	D	I	A	SA
PRiSM methodology in the Nigerian tertiary			1		
education sector					
Advocacy and Awareness	25	42	17	97	58
Company's Existence in Years (Experience)	0	0	0	97	142
Staff Strength of Construction Business	18	18	17	0	186
Physical structures of the Construction Firm	149	0	0	80	10
Accessibility to Affordable Tools and	0	112	0	0	127
Applications					
Presence of Quality Construction Experts	0	0	132	0	127
Supportive ICT Infrastructure	35	35	17	87	65





www.nipesjournals.org.ng

Legislation/Legal Requirement	0	0	0	87	149
Commitment and backing from Top	0	0	0	37	202
management				- A 19	
Strengthening and Implementation Mechanism	18	18	17	0	184
Ability to operate the Project Management	139	0	0	0	100
software packages					
Economic Incentives	0	122	0	0	117
Construction Standards	0	0	122	17	100
Knowledge Sharing	35	35	17	87	65
Changes in the Construction Process	0	0	0	124	115
Cost Inconsistencies	0	0	17	37	185
Regulator Mechanisms	18	35	17	0	169
Level of Government Support for Project	149	0	0	0	90
Management tools			(20)		
Supportive Policies and Legislation on Project	0	149	0	0	90
Management Tools in Nigeria					
Resource Efficiency	0	0	139	0	100
Competitive Advantage	35	35	17	104	48
Computer literate level of construction	0	0	0	97	142
stakeholders					
Awareness of the benefits of Software use	17	0	0	17	205
Level of Change Management Procedure	18	35	17	0	169
Within Construction Firm					1.05
Confidence Level of Software technology	139	0	17	0	83
usage by Industry stakeholders					
Total (Percentage)	795	636	563	968	302
	(13.27)	(10.62	(9.39	(16.16	8
	%)	%)	%)	%)	(50.
					67%
M			1 (1)		)
Mean	3.3264	2.6611	2.355	4.0502	12.6
			6		694

# 3.4. PRiSM Methodology Impacts

According to the respondents' preferences in table 4, seven factors were identified that could impact PRiSM methodology. Thirty-three point five per cent infer that there is a high chance of projects being delivered on time using the PRiSM methodology; 44.8% also affirm that there is a high chance of projects delivered on cost using same. Surprisingly, only 15.9% strongly agree that projects are highly to be delivered on the scope. Again, 56.5% are optimistic that there is a high chance of projects progressing without scope changes during the project life cycle. In comparison, 70.7% think there is a high chance of projects progressing as planned using the PRiSM methodology.





www.nipesjournals.org.ng

Further, 38.9% believe there are high chances of innovative ways of managing projects using the PRiSM methodology. In comparison, 49% are satisfied that there is a high chance that project managers understand the project better using the PRiSM methodology. Overall, there is a confidence level of 44.2% affirmative that PRiSM methodology impacts project delivery.

Table 4: PRiSM methodology impacts

SD	D	I	A	SA
0	142	0	17	80
0	0	132	0	107
52	35	17	97	38
0	17	0	87	135
18	18	34	0	169
129	17	0	0	93
0	122	0	0	117
199	351	183	201	739
(11.89%)	(20.98%)	(10.94%)	(12.01%)	(44.17%)
0.9163	1.3938	0.7657	0.8828	3.5105
	0 0 52 0 18 129 0	0     142       0     0       52     35       0     17       18     18       129     17       0     122       199 (11.89%) (20.98%)	0     142     0       0     0     132       52     35     17       0     17     0       18     18     34       129     17     0       0     122     0       199     351     183       (11.89%)     (20.98%)     (10.94%)	0     142     0     17       0     0     132     0       52     35     17     97       0     17     0     87       18     18     34     0       129     17     0     0       0     122     0     0       199     351     183     201       (11.89%)     (20.98%)     (10.94%)     (12.01%)

#### 3.5. Project Delivery Performances

Seven factors are identified to contribute to project delivery performance. Amongst these, respondents are confident that projects are delivered on time using the PRiSM methodology (37,7%); projects are delivered on cost using the PRiSM methodology (15.9%); Projects are delivered on the scope using the PRiSM methodology (52.3%); Projects are delivering without scope changes during the project life cycle using the PRiSM methodology (77.4%); Projects are delivering as planned using the PRiSM methodology (77.8%); Projects are managed innovatively using the PRiSM methodology (30.5%) and Projects are understood better using the PRiSM methodology (37.7%). These factors





www.nipesjournals.org.ng

show a 47% affirmative that the above factors influence project delivery performance, as depicted in table 5.

Table 5: Project delivery performance

Project Delivery Performance	CD	D	T	A	SA
Project Delivery Performances	SD	D	1	Α	
Projects are delivered on time	17	0	132	0	90
using the PRiSM Methodology					
Projects are delivered on cost	35	52	17	97	38
using the PRiSM Methodology		100000000000000000000000000000000000000	0.000		
Projects are delivered on the scope	0	0	17	97	125
using the PRiSM Methodology					
Projects are delivered without	0	0	0	54	185
scope changes during the project					
life cycle using the PRiSM					
Methodology					
Projects are delivered as planned	18	18	17	0	186
using the PRiSM Methodology					
Projects are managed innovatively	166	0	0	0	73
using the PRiSM Methodology					
Projects are understood better	0	149	0	0	90
using the PRiSM Methodology		33. 35. 354			
Total (Percentage)	236	219	183	248	787
	(14.11%)	(13.09%)	(10.94%)	(14.82%)	(47.04%)
Mean	0.9874	0.9163	0.7657	1.0377	3.2929

#### 4. CONCLUSION

This research concludes that PRiSM methodology could manage climate change through the reduction of carbon footprint in Nigeria's building industry. It further concludes that construction professionals in Nigeria's building industry are change-averse and, as a result are missing out on the advantages and benefits new or sustainable methods offer. First, it shows a need for more knowledge in sustainable project management and senior management support. Secondly, PRiSM methodology could deliver the project with minimal scope changes and provide a schedule, cost efficiency, and specification. Furthermore, it shows a link between project success and PRiSM methodology. However, cost of implementation, complexity, difficulty in assessing success are some of it draw backs. A significant limitation of the research is the unavailability and access to data on construction firms executing projects in the tertiary educational sector in Nigeria.

## 5. RECOMMENDATION

This study recommends that:





www.nipesjournals.org.ng

- 1. There is a need for construction professionals to be ready, willing and open to new and innovative technologies and methodologies.
- 2. There is a need for top management's full support and encouragement in the deployment of new methodologies such as training and knowledge hunting, and information sharing.
- 3. Knowledge of PRiSM methodology, adoption and implementation should be vigorously pursued.
- 4. Government and stakeholders in the building industry should collaborate to standardise PRiSM as the de facto methodology for infrastructure project implementation.

## 5.1. Contribution to Knowledge

This study considers the versatility and benefits of the PRiSM methodology. It is an awakening call to stakeholders of the importance of social, economic, and environmental dimensions while also ensuring that scope, time, cost and quality are not negatively impacting the execution of the projects.

#### 5.2. Areas of further study

As projects are executed in different industries, every industry may have its project management peculiarities. Therefore, while this study focused on stakeholders' perception of PRiSM methodology on project success in the construction industry, its influence on project delivery in other industries, such as manufacturing, oil and gas, pharmaceuticals, and others, would be a valuable study.

#### REFERENCES

- [1] Kerzner, H., (2017). Project Management: A Systems Approach to Planning, Scheduling and Controlling (12th Ed. ed.). Hoboken, New Jersey.: John Wiley & Sons, Inc.
- [2] Project Management Institute. (2021). A Guide to the Project Management Body of knowledge, Newton Square, PA: Author
- [3] Silvius, G. (2017). 'Sustainability as a New School of Thought in Project Management Journal of Cleaner Production 166, 1479-1493.
- [4] Muhammed, A. O., Muhammed, A. A., Yakubu, H. A., Suleiman, A., & Adam, A. (2022a). Assessment of Factors Affecting Contractors Tendering Success for Construction Projects in North-Central Nigeria. International Journal of Real Estate Studies, 16(1), 87–99. https://doi.org/10.11113/intrest.v16n1.155.
- [5] Anosike, N. M. (2021). Views of construction professionals on the causes and remedies of building collapse in Nigeria. International Journal of Engineering Technologies and Management Research, 8(6), 68-85.
- [6] Matto, M. C., Ame, A. M., & Nsimbila, P. M. (2021). Influence of contract management on value for money procurement in Tanzania. Int. J. Procurement Management, Vol. 14, No.6
- [7] Cochran, W. G. (1963). Sampling Technique, 2nd ed.; John Wiley and Sons Inc.: New York, NY, USA.
- [8] Monca, Gutierrez (2014). Applying PRiSM methodology in the Canadian Construction Sector.
- [9] Quan, P., Bilge, E., & Yesemin, Nielsen (2022). Project Management for Sustainable Buildings: A comprehensive Insight into the Relationship to Project Success.