# Multidisciplinary approach and consensus of opinions: necessary options for curbing challenges affecting private real estate project implementation success.

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Abstract: There has been growing concern on the need for multidisciplinary approach as well as consensus in tacking identified factors affecting private real estate projects implementation success, in a bit to tackle the above the study identified factors that affects private real estate project implementation success, in addition it noted that there is tussle amongst various professionals on who is best to handle implementation private real estate projects, and that several reasons where largely responsible for lack of consensus in the opinion of relevant professionals which includes their level of experience in the industry, level of education and training as well as lack of adequate knowledge of sisters-professions role in real estate project implementation in the industry. The work also determined the extent to which absence of consensus on the factors that affect implementation success. In the statistical analysis done using one-way ANOVA it was discovered that there was statistical difference in the opinion of real estate project implementation success. The recommended a synergy amongst the professional this will help to appreciate the multidisciplinary nature of the real estate industry.

Keywords: Factors, Multidisciplinary, Project, Real Estate, Success.

#### 1.0 Introduction

Real estate industry, a viable industry over the years has faced or featured failures especially as it concern building projects and this has continued unabated cutting across private and public sector projects respectively. The challenge is being compounded by professional within the industry do to their inability to agree on the likely consequences while each profession insist or stands firm from their own professional point of view and these insistence or inability to reach a consensus has made it difficult findings solutions to the challenges.

industry The real estate which is multidisciplinary obviously lacks consensus in the opinions of various professional acting on it, the absence of the consensus in their opinions has lingered for years and there seems not to be an end. More worrisome is the ever growing of insistence (claim) of each professional that they are the best to handle implementation of real estate project. Each profession claims to be superior to another and more qualified to handle implementation of real estate project than another. In the midst of these claims are cases of failed private real estate projects even before the very professional claiming to be the best or expert. Nwachukwu and Emoh, (2011), noted that when there is a challenge of failure, collapse and or everyone looks abandonment, up to Engineers who in their professional pride and personality ego accept the blame but could not find solutions to the menace. The implication of the above statement is that Engineers accepts responsibility yet projects they handle still fails. Sampling the opinions professionals like Quantity of other surveyors, Builders, Architects etc shows clearly that each profession has at one time or the other, even now claimed and still claiming to be the most qualified in terms of whom is the best to handle implementation of private real estate projects.

It could be observed too that most of the professionals claims to be master of all as far as implementation is concerned, thereby raising concerns on what happens to call for adopting multidisciplinary option and as well focus on specialization - need (clamour) to focus on the core competencies (duties) of each professional. Nwachukwu, (2016), opined that Estate Surveyors has been acting as real estate project managers, but since a new profession has emerged, implementation or management of real estate projects should be left in the hands of the newest bride Project Manager (from the discipline, Project Management), while Estate Surveyors and Valuers focus on their duties of Estate Surveying and Valuation. This view points to the fact that there is need specialization emphasis to on and multidisciplinary nature of the real estate industry and profession. The real estate industry is multidisciplinary and actors are expected to act within their professional limit, such has not been the case in the industry across this side of the globe and has been one of the reasons behind failed and unsuccessful implementation of private real estate project.

This work however looks at the multidisciplinary concerns of the real estate project while emphasizing roles of each professional in the industry, the claims (tussle) as whose professional is more qualified to handle implementation of real estate project, reasons why there is tussle and the extent the absence or lack of consensus in the opinions of relevant affects professionals implementations success. It stressed the need to adopt multidisciplinary approach to implementation of private real estate project while emphasizing the impact of absence of opinions on the factors that affect the implementation process and determine the extent the lack off or absence of opinion affect same.

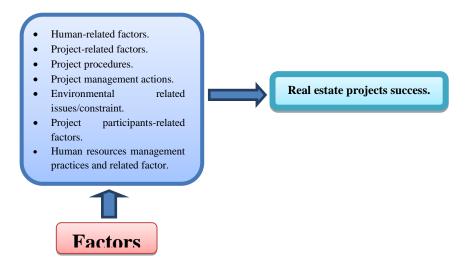
## 2.0 Material and methods:

In this study, descriptive and inferential statistical tests were employed. Descriptive statistical tools include the tools for presentations such as tables. simple percentages and item mean scores. Inferential the on other hand draw conclusion that extend beyond immediate data, they have ability to test hypothesis which include one-way ANOVA. The study population includes firms of professionals involved in private real estate projects implementation in the five states, in South East Nigeria. They include; Architects, Builders, Engineers (civil), Estate Surveyors and Quantity Surveyors who are directly involved in private real estate project implementation and are the major focus of this work as well as the target population. The websites of the various professionals, like register of Architectural firms entitled to practice in the Federal Republic of Nigeria 2017, for Engineers (Civil), the number of members licensed to practice for the year 2019 on Council for regulation of Engineering (COREN) website were major sources of information on the population. For that of Builders branch chairmen of the states under study were contacted who gave an estimate/idea of number of firms professional in their states since there were information on their site. no Total population sampling was used in this study. Total population sampling is a type of sampling technique which involves the examination of the entire population (i.e., the total population) that have a particular set of characteristics (e.g., experience. knowledge, skills, exposure to specific work or project, etc.). It is a type of purposive sampling technique one chooses to examine the entire population i.e., the total population that have a particular set of characteristics. This research featured a close ended question in addition to matrix which is also a form of close ended questionnaire. Here question were arranged to form a table with identical response options placed on top.

#### **3.0** Theories and literatures:

# Factors affecting real estate project implementation success

Attempts has been made by scholars to identify factors that affects real estate projects implementation success notable amongst them are those research by Zarina, Zawawi, Yusof and Aris (2014), Mwai (2014), Ifediora and Keke (2019), Malkani and Kambekar (2013), Koirala (2012) and Flumey, (2016). However, Ifediora, Egolum and Emoh (2019), in their work came up with a more comprehensive approach to identifying and as well grouping these factors, this was followed by proposing a conceptual framework as seen in the picture below.



# Fig. 1: Conceptual framework on factors affecting real estate project implementation success.

The framework identified and grouped these factors into; human related, project-related, project management action, project procedures, environmental constraint, project participants and human resources management practices. Each of these factors has variables or individual constraints. According to Ifediora, *et al (2019)* they are as detailed below.

Human-related factors includes: Nature of clients' means of funding, clients' emphasis on high quality of construction at low construction cost. level of clients' experience, size of the clients' organization, clients' emphasis on quick construction and ability to brief, clients' decision making ability and definition of roles, clients' contribution to design and construction, management skill of the project team leaders which includes planning, organizing, coordinating, motivating and directing, project team leaders experience and commitment to meet success criterion, project team leaders' early and continued involvement in the project, project team leaders' working relationship with others, project team leaders' technical skill and adaptability to changes in the plan and youth harassment of developers.

**Project-related factors:** The attributes used to measure this factor are type of real estate project; they include the type of real estate project, nature of such project, number of floors of the project, complexity of project, variation of project plan and size of project.

**Project procedures:** This aspect looks at issues bothering on procurement and tendering, they are more of procurement related and tendering related issues. The scope of procurement can be defined as the framework within which construction is brought about, acquired or obtained. Therefore, two attributes are used to

measure this for the design and construction of the project and tendering method procedures adopted for the selection of the project team and in particular the main contractor. Project procedure includes non adherence to procurement principle and procedures, wrong and inability to strictly adhere to tendering rules and procedures.

Project management actions includes: Project management action is seen as critical for project success, it has been suggested that by using the management tools, the project managers can plan and execute their construction projects to maximize the it chances of success. The variables in project management action include: wrong application of good communication channels, faulty/wrong feedback mechanism, wrong application of control mechanisms, ineffective/wrong coordination process, effort devoted to planning, absence of or poor safety and quality assurance program, organization structure, control of subcontractors' works. the overall managerial actions and inefficient development control.

**Environmental related issues/constraint:** Environment simply refers to everything around us, either living or non-living which includes physical, chemical and other natural forces. The word environment is believed to be one of the factors affecting the project success. The attributes used to measure this factor are: economic environment and issue relation to economy in relation prices of building materials, social environment and matters relating to culture and tradition, political environment,

physical environment and matters relating to geography and weather conditions, industrial relation environment, level of technology advanced, issues regarding internal and external environments.

Project participants-related factors: Real estate project participants are the major or key stakeholders/players in real estate project implementation, they includes: project manager, client, contractor and subcontractor, consultants, supplier, and manufacturers. The variables are; the type of client and his experience and construction sophistication, knowledge of construction project organization, project financing, client confidence in the construction team, well-defined scope, owner's risk aversion, design team experience, project design complexity, mistakes/delays in producing design documents, the level of contractor's experience, site management, contractor's cash flow, effectiveness of cost control system, speed of information flow, the skills and characteristics of project managers, the commitment, competence, and experience of the participants, team effort by all parties to a contract.

Human resources management practices and related factor includes: Wrong recruitment and selection practice. absence/poor supervision/inspections of involved workers in projects implementation, faulty or wrong way of appointment of contractors, faulty ways of handling procurement of materials, absence of motivation for actors involved in implementation, poor appraisal system and absence of compensation packages for

deserving participants, faulty knowledge management system, poor employment relation and communication practices, faulty talent management and retention strategies, poor organization, design and development, absence of job satisfaction and security, absence/poor training, development and performance management/evaluation, poor or absence of human resource development programme, faulty or absence of reward management, absence of health, safety and welfare programmes and faulty employment practices.

# The Professionals in the real estate industry and roles

## 1. **The Architect**:

Architecture as a discipline has grown over the years to include separate discipline such landscape as Architecture; various areas of specialization abound in Architecture as a discipline. Architecture makes sketch design, full design with detailed specifications and building prototype. He works in close collaboration with project manager and client in monitoring project progress and issues of value/engineering management. The scope of professional services offered by Architect includes: Architecture, interior decoration. design for maintenance, modelling etc. An Architect possesses the skill and knowledge to enable him originates, design, plan and supervise in some cases the erection of the structures.

## 2. The Quantity Surveyor:

A Quantity Surveyor is a professional working within the Building and Engineering Construction Industry that is concerned with cost and contract administration from conception to close out stage, i.e. He is а professional who into details of costing. He gives an idea of all quantities in a project in terms of financial involvement. A quantity surveyor prepares of bill of quantities and other tender documents. He advises on tendering procedures and contractual arrangements. He does tender evaluation, analysis and reporting. He can prepare interim valuation, measures variations and cost control. Quantity surveyors are responsible for the cost of any building project from initial estimates, right through to the final acquisition of materials. A typical work of a quantity surveyor might involve:

- Preparation of contracts, including details regarding quantities of required materials.
- On-going cost analysis of maintenance and repair work.
- Feasibility studies of client requests.
- Analysing completed work and arranging payment to contractors.
- Allocating upcoming work to contractors.

• Site visits, assessments and projections for future work.

## 3. The Builder:

A Builder is an academically trained specialist and statutorily registered professional responsible for Building Production Management, Construction and Maintenance of Building for the use and protection of mankind.

A builder is into production/construction management of building projects. Building managers direct labour projects, does building surveying. Builders reports on abandoned projects and are into maintenance management.

# Some functions of a Builder' in the Site during Construction includes:

- a. Give professional attestation that work at every given stage is in accordance with the design.
- Ensuring that the contractor(s) have competent and adequate number of technical personnel on the project.
- c. Use check lists for inspecting site operations continuously.
- d. Monitoring the effectiveness of site management.
- e. Examine work in the contractor's and/or subcontractors and supplier's yards as necessary.
- f. Checking that work proceeds regularly and diligently according to programme.

- g. Keeping a diary of events, file of instructions received, with relevant observations.
- h. Checking production information for errors, discrepancies and divergences and notifying the client and other consultants.
- i. Monitoring the correct application of specified techniques.
- j. Attending site meetings.

# 4. The Estate Surveyor and Valuer

The profession of Estate Surveying and Valuation means the art, science and practice of:

- 1. Determining the value of all description of property assets (Corporate and incorporated, movable and unmovable, real and personal) embracing land and buildings, plant and machinery, furniture and fittings/equipment and all other business assets.
- 2. Acquiring, managing and developing estates including facilities and other business concerns with the management of property assets.
- 3. Securing the optional use of land and its associated resources to meet social and economic needs.
- 4. Determining the condition of building and their services

and advising on their maintenance, alteration and improvement.

- 5. Determining the economic use of property asset and its associated resources by means of financial appraisal.
- 6. Selling, buying or letting as an agent, real or personal property or any other interest therein.

The professional duties of Estate Surveyor and Valuer cuts across valuation of various purposes ranging from interest in land and furniture, building, fixture and fittings; plant and machinery; annual rental, rating purposes and litigation arbitration. Other includes and valuation for compulsory acquisition and compensation, valuation for damages and injurious affection due to oil spillage, sale of interest in land, building, plant and machinery. Estate Surveyors are experts in property management, agency and auctioning, preparation of various schedules of dilapidation, feasibility and viability studies and facilities management. The role of an Estate Surveyor starts at the conception phase of any real estate development. He advises on the type of investment and often seen as one who is first consulted in matter relating to any proposed investment. He advises on site suitable and in case where there is alternative, the best alternative. An Estate Surveyor advice on the highest and best use of land, little wonder in some countries they are called land economists. He sees to land acquisition and registration of the same. Estate Surveyor before now are seen as project managers because of his educational background, the intensity of training and his knowledge and experience in the built environment and construction industry from conception to marketing.

- 5. **Engineers:** Engineers are professionals who use scientific knowledge to design, constant and maintain structures. They play vital role in planning, developing, building and maintaining public infrastructure stock. The following areas of engineers are relevant in built environment.
  - The Civil Engineer: They deal with planning, construction and maintenance of fixed structures or public works, as they are related to earth. water or civilization. Thev are with concerned structural stability of proposed projects. can be referred He to sometimes as structure engineers.
  - The Mechanical Engineer: They make sure that all mechanical components functions effectively and are properly installed with

emphasis on provision of comfort.

- Electrical Engineer: They are responsible for electrical wiring, electrical installations, lightning and power generations.
- 6. **Project management:** A project manager is relatively a new discipline in environmental sciences; he is one who studied project management as a course in tertiary On institution. real estate development he acts, on behalf of the client. Seen as the client on site, he appoints the Architect and other members of the building team. He be independent must in the recruitment of all staff for the execution of the project to avoid, failure. abandonment and or collapse.

Identification of roles of various professionals involves in real estate project implementation is an indication of multidisciplinary nature of the industry. Its' a confirmation of the fact that each profession has an important role to play and that the industry it's more of interdisciplinary. So, the absence consensus suggest that there is need for multidisciplinary approach which will ensure specialization, little wonder in latter case Nwachukwu, (2016) opined that since there is a discipline called project management the Estate Surveyor and Valuer should maintain his role at the conception

and termination phase. However, it should better noted that if he maintains his role at the stage as suggested, then there is likely a problem will emerge in future when eventually the property/project is handed over to him to manage, because of wrong materials used in implementation. So an Estate Surveyor and Valuer still has input in all stages as he can advise on the type of construction materials to be used because of experience in maintenance his and management the completed project.

In practice what is prevalent is situation where most professionals claim the boss or the best to handle the implementation, what research has failed to establish is the fact that people tends to do all kinds work because of the underlying issue i.e. the **quest to survive** – no thanks to the nation's economic situation which is the major issue that propelled such quest.

Evidences abound in literature on the gains of multidisciplinary approaches to issues, but why the real estate industry in this part of the globe is yet to imbibe such as a means of curbing failures in the industry is still an issue that demands further explanation. In a paper presented by Ifediora, Ogunlola, Olubi and Odunlami, (2018) on interdisciplinary collaboration- a panacea so for sustainable infrastructural development, they identified benefits of interdisciplinary many collaboration and suggested the need for researches interdisciplinary more on it affects the built collaboration as environment that will provide empirical evidence that is grounded in the practice and its processes is needed in order to ultimately

establish whether interdisciplinary collaboration is the panacea for a sustainable infrastructural development as postulated. What this means is there is benefit to be derived in collaboration while appreciating each other's role. If the industry is not multidisciplinary, there won't be the need for discussing interdisciplinary collaboration.

In work by Tang and Hsiao (2013), advantages and disadvantages of multidisciplinary collaboration in design education, The findings of the study show multidisciplinary collaboration leads to better skills in communication. collaboration, and professional abilities, a better understanding of the collaborative process and how different professions complement each other, and has a positive effect on future career development and sense of achievement.

On a study by Fanfon (2013), he noted that a multidisciplinary rehabilitation team should have relevant knowledge and skills, work together towards common goals for each patient, involve the patient (family and care givers) with the aim to maximize the patient's participation in his or her social setting and minimize the pain and distress they experience. He went further to list benefits of team work to include; diverse knowledge and skills are brought together, quicker decision making results, professional collaboration eliminates or reduces service in parts, overall cost maybe cheaper for the patient and the service its self is cost efficient, professionals see clients and their families as whole persons, not as

parts of a whole (e.g., mouths, brain, arms, legs), he stressed that appreciation of other disciplines allows professionals to accommodate larger functional goals and integrated interventions, instead of working on isolated tasks.

It's clear from the above discussed, that multidisciplinary collaboration has obvious advantages and should be imbibed, it's important too if state that to multidisciplinary collaboration is adopted then there is tendency that the expected consensus in opinions of relevant professional will be made possible. Note also that in literature multidisciplinary, interdisciplinary and trans-disciplinary are interchangeable used in most cases and they mean the same thing.

### 4.0 **Results and Discussion**

The result of the study showed the following:

The identified factors that affect private real estate project implementation success includes, project management action which was ranked the highest (first) followed by human related factors. Others factors identified were: project-related factors, project participants-related factors, project environmental related procedures. issues/constraint and human resources management practices and related factor in that order.

All professionals lays claim or claims to be the sole/right professional fit or in charge of implementation of real estate project.

Identified reasons why there are tussles or lack of consensus includes; level of experience in the constructions industry, level of education and training, lack of adequate knowledge of sister professions role in the real estate industry as well as lack of general body controlling, supervising and overseeing all the professions within the industry and economic issues and struggle to earn better living.

Absence of consensus in opinion of relevant professionals on factors affecting real estate

projects implementation success affects that to a great extent.

This finding also shows that there was significance difference in the opinion of real estate professional on the notion that the identified factors affect private real estate projects implementation in the south-east Nigeria

#### Data presentation on factors that affect private real estate projects implementation success.

S/N	The factors that	Ν	SD	D	Ν	Α	SA	SUM	MEAN	RANK
	affects private real		1	2	3	4	5			
	estate project									
	implementation									
	success									
1	Project management	311	8	11	22	177	93	1265	4.08	$1^{st}$
	actions.									
2	Human-related	311	10	21	53	93	134	1253	4.02	$2^{nd}$
	factors.									
3	Project-related factors.	311	10	30	53	165	53	1154	3.71	3 <sup>rd</sup>
4	Project participants-	311	9	31	75	134	62	1142	3.67	4 <sup>th</sup>
	related factors.									
5	Project procedures.	311	13	59	84	62	93	1096	3.52	5 <sup>th</sup>
6	Environmental related	311	23	62	38	125	63	1072	3.44	6 <sup>th</sup>
	issues/constraint.									
7	Human resources	311	58	21	32	139	61	1057	3.40	7 <sup>th</sup>
	management practices									
	and related factor.									

Table 1.1Factors that affect private real estate project implementation success.

The analysis in table **1.1** shows the factors that affects private real estate projects implementation success in the study area. Out of the seven identified factors, project management action was ranked the highest (first) with a mean score of 4.08 followed by human related factors with a mean score of 4.02. Others factors identified were; project-related factors, project participantsrelated factors. project procedures, environmental related issues/constraint and human resources management practices and related factor with means scores of 3.71, 3.67, 3.52, 3.44 and 3.40. They were ranked third, fourth, fifth, sixth and seventh respectively. The implication of the result is that of all the seven identified factors which project affects private real estate

implementation success in the study area, project management action ranked highest thus implying that it contributes highest, it does not mean that other factors does not have impact on implementation success, however they still have appreciable impact as this can confirmed on by the number of respondents who are went for strongly agree and agreed as opposed to the number that went for disagree and strongly disagreed respectively.

Data presentation on opinion of professionals as to who is more qualified to handle real estate project implementation and the extent of consensus in their opinion.

Table 1.2	Opinion/Claim by professional on which professional who has the sole right
	(more qualified) to be in charge of real estate project implementation success.

	Sum	Mean				
Strongly Disagree	Disagree	Undecided	Agree	Strongly agree		
1	2	3	4	5		
<b>23</b> (7%)	55 ( <b>18%</b> )	64 ( <b>21%</b> )	106 ( <b>34%</b> )	63 ( <b>20%</b> )	1064	3.42

The table 1.2 above showed that 106 respondents representing 34% of the respondents agreed and 63 respondents representing 20% strongly agreed that each professional(s) lays claim or claims to be the sole/right professional fit or in charge of

implementation of real estate project. This means that there are obvious tussles on who is best qualified to implement real estate project thus jettisoning the need for collaboration as well as the need to appreciate the multidisciplinary nature of the real estate industry.

Reasons	No of respondents	Percentage (%)	
Level of experience in the constructions industry.	61	20	
Level of education and training.	91	29	
Lack of adequate knowledge of sister professions role in the real estate industry.	159	51	
Total	311	100	

The analysis on table 1.3 above showed the reasons as to why there is lack of consensus in the opinion, 61 respondents representing 20% identified level of experience in the constructions industry, 91 respondents representing 29% says its level of education and training while 159 respondents representing 51% went for lack of adequate

knowledge of sister professions role in the real estate industry. Others reasons as identified by respondents include: Lack of general body controlling, supervising and overseeing all the professions within the industry and economic issues and struggle to earn better living.

Table 1.4The extent to which absence of or consensus in opinions of relevant<br/>professionals on factors which affects private real estate project<br/>implementation success

	Sum	Mean				
None	A little	A moderate amount	A lot	A great deal		
1	2	3	4	5		
<b>21</b> (7%)	33 ( <b>10%</b> )	42 ( <b>14%</b> )	180 ( <b>58%</b> )	35 (11%)	1108	3.6

The analysis on table 1.4 above showed that 35 respondents representing 11% were of the view that absence of consensus in opinion of relevant professionals on factors affecting real estate projects implementation success affect that to a great deal, 180 respondents representing 58% say it does affect that a lot, while 42, 33, and 21 respondents representing 14%, 10% and 7% respectively went for a moderate amount, a little and none. The implication of the analysis is that absence of consensus in opinion of relevant professionals on factors affecting real estate projects implementation success affects that to a great extent.

#### **Test of hypothesis**

Ho<sub>1</sub>: There is no significant difference in the opinion of real estate professionals with regards to impact of the identified factors on private real estate projects implementation success in the south-east Nigeria.

**Table 1.5**Summary of One-Way ANOVA showing the difference in the Opinion of Real<br/>Estate Professionals on the Impact of Identified Factors on Private Real Estate<br/>Projects Implementation.

	Sum of	Df	Mean	F	Sig.
	Squares		Square		_
Between Groups	42.062	5	8.412	6.117	.000
Within Groups	419.436	305	1.375		
Total	461.498	310			

Contrary to the stated null hypothesis, the result of one-way ANOVA indicates that a statistical difference exists in the opinion of real estate professionals with regards to the impact of the identified factors on private real estate projects implementation success in the south-east Nigeria, (F(5, 307) = 6.117, p = .000). Hence, the decision rule is to reject the null hypothesis if the test statistics

#### 4.0 Conclusion.

The major findings as obtained from the analysis of the result indicated that amongst the identified factors which affects private real estate projects implementation success in South East, that project management action was ranked the highest (first) in terms of the extent its affects implementation success followed by human-related factors, project-related factor, project participantsrelated factors. project procedure. environmental related issues/constraint, human resources management practices and related factor. Lack of adequate knowledge of sister professions role in the real estate industry was also identified as one of the reasons as to existence or claim show of superiority on who is the right professional to be in charge of private real estate projects implementation. The result hypothesis showed that there is no consensus among the real estate professional on the notion that the identified factors affect private real estate from the table is greater than the F critical value with k -1 numerator and N-K denominator degrees of freedom. This finding implies that there is significance difference in the opinion of real estate professional on the notion that the identified factors affect private real estate projects implementation in the south-east Nigeria, i.e. alternative hypothesis was accepted.

projects implementation in the South-East Nigeria. The study recommended that and relevant developers professionals involved in implementation of private real estate projects must ensure that they carefully take note of the identified factors consciously and meticulously while implementing private real estate project especially the high ranked. The multidisciplinary nature of the real estate industry needs to be appreciated as benefits are enormous and a synergy is needed amongst professionals involved in private real estate projects implementation, this will help them familiarize themselves with each other's role. Doing so will enable each profession know boundaries/limits. Also as identified by some respondent that lack of general body controlling, supervising and overseeing all the professions within the industry is one the reasons as to why there is absence of consensus in opinions of the professionals involved in real estate development, its noteworthy to state that

there is need for an umbrella body that will bring all the professionals within the industry together. This when established will be saddled with the responsibility of organising workshops and seminar with view to harmonising the roles of all the relevant professionals involved.

## 5.0 References

- [1]. Architecture Registration Council of Nigeria (ARCON), Register of Architectural firms entitled to practice in the Federal Republic of Nigeria, 2017 edition. Retrieved from <u>https://archccess.com/2017/05/archit</u> <u>ectural-firms-in-nigeria-html/.</u>
- [2]. COREN Portal, Members licenced to practice for year 2019 retrieved from <u>https://portal.coren.gov.ng/Account/</u><u>MemberSearch.</u>
- S. [3]. Damaoh. I. (2015).An investigation into the causes and effects of project failure in government projects in developing countries: Ghana as a case study. Doctoral thesis. Liverpool John Moores University, United Kingdom.xx+325. Retrieved from researchonline.ljmu.ac.uk/.../158244 \_2015%20Isaac%20Sakyi%20Damo ah%20PhD.pdf.
- [4]. Fanfon, T. N. (2013). The importance of multidisciplinary approach in the development of rehabilitation <u>http://www.fatoafrique.org/congres2</u> 013/IMG/pdf/fafon\_timothy\_ppt\_en g.pdf
- [5]. Fummey, S. L. (2016). Studies on Exploring Critical Success Factors

for Stakeholders Management in Construction Projects in Ghana. Master's thesis, Kwame Nkrumah University of Science And Technology, Kumasi, Ghana.xiii+102 Retrieved, from http://hdl.handle.net/123456789/105 26.

- [6]. Ifediora, O., Ogunlola, A.O., Olubi, A.R. and Odunlami, O.O. (2018). Interdisciplinary collaboration: а for panacea sustainable infrastructural development in Nigeria. Presented at the 48th Annual Conference of the Nigerian Institution of Estate Surveyors and international Valuers. held at conference Centre U.I. Ibadan, Nigeria.
- [7]. Ifediora, C.O, Egolum, C.C. and Emoh, F. I. (2019). Conceptual framework on factors that constrain real estate projects implementation success in south east nigeria. *Global Journal of Advanced Research*. 6(5), 202 - 209.
- [8]. Ifediora, C. O. and Keke, O. V. (2019). Human resources management practices and real estate project management success in Awka South L.G.A., Anambra State. International Journal of Civil Engineering, Construction and Estate Management (IJCECEM), 7(2) 1-15.

- [9]. Koirala, M. P. (2012). Risk in housing and real estate: Construction projects study in Nepal. Doctoral School of Thesis, Industrial Engineering Singhania University, Pacheri Bari, Jhunjhunu (Raj.), India.xiv+230 Retrieved from https://www.researchgate.net/publica tion/280561094\_PhD\_Thesis\_Risks\_ in Housing and \_Real\_Estate\_Construction\_Projects \_Study\_in\_Nepal.
- [10]. Mwai, K. J. (2014). Factors influencing project completion in the construction industry, housing Nairobi country. Master project, University of Nairobi, Kenya.xii+78. Retrieved from http://erepository.uonbi.ac.ke/bitstrea m/handle/11295/76078/Munyoki Fa ctors%20influen cing%20completion%20of%20constr uction%20projects.pdf?sequence=4.
- [11]. Nigerian Institution of Estate Surveyors and Valuers (NIESV), Firms directory. Retrieved http://firms.niesv.org.ng/index.php/
- [12]. Nigerian Institute of Quantity Surveyors (NIQS), firms. Retrieved from <u>http://niqs.org.ng/wpcontent/uploads/</u> 2017/08/NIQS-PRACTICING-<u>FIRMS-COMPANIES-</u> <u>DIRECTORY31ST-JULY-2017.pdf</u>.
- [13]. Nwachukwu, C. C. (2016). Dimensions of real estate project

*management*. Owerri, Nigeria: Gabtony Prints Ltd.

- [14]. Nwachukwu, C. C. and Emoh, F. I. (2011). Building construction project management success as a critical issue in real estate development and investment. American Journal of Social and Management Sciences, 2(1), 56-75. doi:10.5251/ajsms.2011.2.1.56.75.
- [15]. Nwachukwu, C. C., Echeme, I. and Okoli, M. N. (2010). Project management factor indexes: a constraint to project implementation success in the construction sector of a developing economy. *European Journal of Scientific Research*, 43(3), 392-405.
- [16]. Tang, H and Hsiao, E. (2013). The advantages and disadvantages of multidisciplinary collaboration in design education, National Taiwan University of Science and Technology, available on http://designcu.jp/iasdr2013/papers/1459-1b.pdf
- [17]. Umeh, O. L. (2018). *Research methodology*. Lagos: University of Lagos Press and Bookshop limited.
- [18]. Zarina, A., Zawawi, E. M. A., Yusof, K., and Aris, N. M. (2014). Determining critical success factors of project management practice: a conceptual framework. Procedia -Social and Behavioral Sciences, 153, 61 – 69. doi: 10.1016/j.sbspro.2014.10.041.