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DISRUPTION OF SUPPLY CHAIN IN NIGERIA CONSTRUCTION INDUSTRY AND ITS ATTENDANT CONSEQUENCES

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ABSTRACT

The effective management of supply chain in Nigerian Construction Industry is a critical aspect of the country's economy. The study aims on evaluating the disruption of supply chain in Nigeria construction industry and its attendant consequences with a focus on Abuja, Nigeria. Descriptive research design was used, the population of the study consisted of construction industry in Abuja which was randomly sampled. The instrument used for data collection was a researcher designed questionnaire. Data generated was analyzed using percentage, descriptive statistics of mean and standard deviation while the hypothesis was tested using linear regression with the aid of SPSS. The results of the study established that there is a low level of awareness of supply chain practices in Nigeria construction industry; Factors responsible for disruption of supply chain in Nigeria construction industry includes policy inconsistencies and Materials shortages is the attendant consequences for disruption of supply chain in Nigeria construction industry; Strategies for most effective supply chain in Nigeria construction industry includes technology integration; Awareness of supply chain practices in Nigeria construction industry have positive and significantly correlate on supply chain practices by Nigeria construction industry. It was recommended that more awareness on supply chain should be carried out in construction industry in Nigeria amongst others. The practical significance of the findings of this study is that it will help construction firms establish long-term partnerships with suppliers to mitigate risks associated with supply chain disruptions.

Keywords: Supply chain, Disruption, Consequences, Construction Industry

INTRODUCTION

Supply chain management (SCM) in construction globally is a complex and multifaceted process that involves the coordination and management of all activities, resources, and partners involved in the construction process, from design to delivery (Vrijhoef & Koskela, 2020). Effective SCM in construction requires the integration of procurement, logistics, and inventory management, as well as collaboration and communication among stakeholders (Akintoye, McIntosh, & Fitzgerald, 2020). The use of digital technologies, such as building information modeling (BIM), is transforming construction supply chains, enabling greater visibility, transparency, and efficiency.

The effective management of supply chain in Nigerian construction Industry is a critical aspect of the country's economy, as it plays a vital role in ensuring the timely delivery of goods and services to meet the needs of the population. However, the supply chain in Nigeria is often characterized by inefficiencies, including poor infrastructure, corruption, and inadequate logistics (Adeyanju, 2018). These challenges can lead to significant consequences, including increased costs, delayed deliveries, and reduced customer satisfaction (Oyatoye & Ayoade, 2017).

The term supply chain has been viewed from several perspectives. Hughes, Hillebrandt and Greenwood (2015) viewed supply chain as an integrated process that involves coordination and collaboration among various stakeholders including suppliers, contractors and clients. Supply chain can also be defined as the network of organizations, people and activities involved in the production and delivery of construction materials, products and services. It encompasses the entire process from raw materials sourcing to the delivery of finished products to the construction site (Christopher 2016).

The Nigeria construction industry is a vital sector in Nigeria's economy, contributing significantly to GDP and providing employment opportunities. A well-functioning supply chain is crucial for the construction industry, enabling the time delivery of materials and services within the proposed budget (Nwakaji, 2024). The Nigerian supply chain is affected by various external factors, such as insecurity, traffic congestion, and regulatory challenges, which can disrupt the flow of goods and services (Afolabi & Ojelabi, 2020). Furthermore, the lack of coordination and collaboration among supply chain stakeholders can exacerbate these challenges, leading to suboptimal performance and reduced competitiveness (Olawoyin & Ogunlana, 2019). This study focuses on Abuja; Abuja was chosen because is not only strategically located in the middle of Nigeria it is also the federal capital city of Nigeria, as such it plays host to a vast number of professionals currently managing projects across the country, it is also headquarters to many construction and consulting firms spread around the country. Five out of the biggest construction companies in Nigeria with professionals currently managing projects across the country were sampled. It is therefore expected that their opinions go beyond Abuja

The level of awareness of supply chain management in the Nigerian construction industry is a significant concern, as it can impact the efficiency and effectiveness of construction projects. The lack of awareness of the impact of disruptions in supply chain management can lead to delays in construction projects, which can result in increased costs and reduced quality (Hughes *et al.,* 2015). Also, the construction in Nigeria is plagued by supply chain disruptions, which can lead to project delays, cost overruns and reduced quality. Several factors contribute to supply chain distruptions in Nigeria (Adenikinju, 2015).

Several author have highlighted a number of benefits to be derived from proper management of supply chain in the construction industry, it is however, pertinent to note that despite the numerous benefits and potential to be unlocked by the proper management of the supply chain in Nigeria, the system is yet to reach its full potentials and harness this advantages resulting from various disruptions to the supply chain; and these has far reaching impact on the various construction stakeholders resulting in cost overrun, time overrun and other weight consequencies, it is based on this premise that this paper intends to study the relationship between the level of awareness and the factors responsible for the disruptions in supply chain in order to proffer effective strategies to mitigating the attendant consequences of supply chain management in Abuja, Nigeria

The present work aims to study the disruption of supply chain in Nigeria construction industry and its attendant consequences with a focus on Abuja - Nigeria.

Hypothesis

A null hypothesis was formulated and tested at 0.05 level of significance

1. There is no significant relationship on level of awareness of supply chain by construction industries and supply chain practices in Nigeria Construction Industry

MATERIALS AND METHODS

Literature Review

It is pertinent to note that this study hinges on Triple Bottom Line (TBL) theory. The Triple Bottom Line (TBL) theory was popularized by John Elkington in 1994. The theory states that businesses should focus on three bottom lines which are profit or economic (financial performance and profitability, People or social (social responsibility and impact on stakeholders, including employees, customers and communities) as well as planet or environmental (Environmental sustainability and impact on the natural environment). The TBL theory is relevant to the present study because it encourages construction companies to measure their performance not just by financial metrics but also by their social and environmental impact thereby promoting sustainability, accountability as well as long – term value creation.

In a study carried out on the level of awareness of supply chain practices in Nigeria construction industry. Oyewobi and Jimoh (2022) found out that not all construction firms and stakeholders in Nigeria understand what sustainable procurement entails, leading to limited adoption.

In respect to the factors responsible for disruption of supply chain in Nigeria Construction Industry, Nwakaji (2024) identified economic fluctuations such as currency devaluation as well inflation, political instability, natural disasters, global events and material shortages. Adenikinju (2015) identified skilled labor shortages, increased project cost as material lead – time and schedule delays.

There are several attendant consequences of disruption of supply chain in Nigeria Construction Industry. Olawoyin *et al*., (2019) identified increased project costs, material shortages and lead – time delays as well as skilled labour shortage. Nwakaji (2024) identified schedule delays as well as project budget overruns.

Several proactive strategies for effective supply chain in Nigeria Construction Industry has been identified. Which includes risk assessment (it involves regularly assessing potential risks to the supply chain and identifying vulnerabilities in suppliers transportation routes and internal processes) as well as alternative sourcing strategies (Diversifying supplier bases to avoid dependency on a single source and establishing relationships with multiple suppliers) (Olawoyin *et al*., 2019). Oyewobi and Jimoh (2022) identified inventory management, strategic partnerships as well as technology integration.

Methodology

The study was conducted using survey design method. According to Emaikwu (2015) a survey research is a type of research design that gathers data from a large number of subjects. In line with Okafor (2021) Consultations were made with various stakeholders and professionals to determine construction firms in Abuja who has projects across the 6 geo-political zones in Nigeria and whose professionals have experience working across the zones in the country over the past 5years, A purposive sampling to include professionals and stakeholders directly involved in the construction supply chain with such firms including Architects, Builders, Engineers and Quantity Surveyor was the carried out (includes AG Vision Construction Nig Ltd, Dantata & Sawoe Construction Company Nigeria Limited, Dumez Nigeria, Setraco Nigeria Limited, and Rotex Construction Company Limited) constitutes the research environment of the study. A purposive sampling technique was employed to ensure adequate knowledge representation from various locations and segments of the Nigerian construction industry, such as large, medium, and small-scale construction firms. The sample size was determined based on the scope of the study and the desired level of precision, with a minimum of 50 respondents recommended for a survey-based study. The entire population of study is made up of fifty (50) respondents randomly sampled.

The instrument for data collection is a self-structured questionnaire. The instrument is titled; Digital Reference Service as Correlate of Users Satisfaction Questionnaire (DRSACOUSQ). It comprises of a 26 – item questionnaire divided into four clusters and each cluster contains relevant question items that addressed each of the four research questions. The questionnaire was scaled using four likert scale of strongly agree (4), agree (3), disagree (2) and strongly disagree (1). The instrument was validated through expert opinion and the completed copies questionnaires were analyzed for reliability using Cronbach Alpha coefficient. Eventually, the reliability statistic of 0.82 was established for the whole set of scores. Research questions were answered using mean and standard deviation while linear regression analysis was used to test the formulated hypotheses. The model used in ascertaining the relationship of the independent variables on the dependent variables of the study has been specified in this section as:

Functional Relationship

$$\left.\begin{aligned} Y &= f(X) \\ y_1 &= f(x_1) \end{aligned}\right\} \quad (1)$$

Regression Models

$$y_1 = B + B_1 x_1 \quad (2)$$

These are the expectations on the subject of the existing effect of the dependent variable on independent variable. This refers to level of awareness of supply chain management in line with the hypothesis formulated

Table 1: Expectations on the subject of the existing effect of the dependent variable on independent variable

S/N	Models	A Priori expectations	Sign
1	$y_1 = B + B_1x_1$	$\beta1 > 0$, $p<0.05$: HO1 will be rejected	Positive
2	$y_2 = B + B_2x_2$	$\beta2 < 0$, $p<0.05$: HO2 will be rejected	Negative

RESULTS AND DISCUSSION

Profile of Respondents

Table 2: Discipline of Respondents

Discipline of Respondent	Frequency	Percentage
Architects	6	12
Builders	8	16
Engineers	12	24
Quantity Surveyors	24	48
Others Specify	0	0
Total	**50**	**100.0**

From the above table it is observed that out of 100% respondents that were used for this study, 12% were architecture while 16%, 48%, 8% and 16% is from building, engineering, quantity surveyors and contracting respectively. Hence majority of the respondents were Quantity Surveyors.

Table 3: Gender of the Respondents

Gender	Frequency	Percentage
Male	37	74
Female	13	26
Total	**50**	**100.0**

From the above table it is observed that out of 100% respondents that were used for this study 74% were male and 26% were female. Hence majority of the respondents are male.

Table 4: Type of Construction Undertaken by the Organization

What Type of Construction is been Undertaken by your Organization?	Frequency	Percentage
Building Works	6	12
Civil Engineering Works	16	32
Heavy Engineering Works	24	48
Consultancy Services	4	8
Others Specify	0	0
Total	**50**	**100.0**

From the above table it is observed that out of 100% respondents that were used for this study, 12% were from building works, 32%, 48% and 8% respectively are from civil engineering works, heavy engineering works and consultancy services. Hence majority of the respondents were from heavy engineering works.

Table 5: Qualification of the Respondent

Qualification of the Respondent	Frequency	Percentage
HND	7	14
B.Sc/B.Tech.	35	70
PGD	4	8
M.Sc/M.Tech	4	8
Total	**50**	**100.0**

From the above table it is observed that out of the 100% respondents that were used for this study, 14% of them are HND holders, 70% of them are B.sc/B.tech holders, and 8% of them are PGD and M.Sc/M.Tech. Hence majority of the respondents are B.sc/B.tech holders.

Table 6: Respondent Years of Experience in the Construction Industry

Respondent years of Experience in the Construction Industry	Frequency	Percentage
0-5years	13	26
6-10years	19	38
11-15years	7	14
16-20years	4	8
Above 20 Years	7	14
Total	50	100.0

From the above table, it is observed that out of 100% respondents that were used for this study, 26% choose less than 5 years, 38% also choose 6-10yrs, 28% choose 11-15yrs, 8% and 14% respectively choose 16-20yrs and above 20 years respectively. Hence majority of the respondents choose between 6-10years of experience.

Table 7: Professional Membership of Respondent

Professional membership of Respondent	Frequency	Percentage
NIA	6	12
NIOB	8	16
NSE	12	24
NIQS	24	48
Total	50	100.0

From the above table, it is observed that out of 100% respondents that were used for this study 36% were from NIA, 22% were from NIOS, while 8% and 34% were from NSE and NIQS. Hence majority of the respondents were from NIA.

Table 8: Awareness of Supply Chain Practices in Nigeria Construction Industry

Level	Number	Percentage (%)
High	2	4
Medium	1	2
Low	17	34
Very Low	30	60
Total	**50**	**100**

The table above provides level of awareness of supply chain practices in Nigeria Construction Industry. As shown in the table, 4% of the respondents accepted high level, 2% of the respondents accepted medium, 34% accepted low level while 60% accepted very low level. Hence majority of the respondents accepted there is a high level of awareness of supply chain practices in Nigeria Construction Industry.

Table 9: Factors Responsible for Disruption of Supply Chain in Nigeria Construction Industry

S/No	Factors responsible for disruption of supply chain in Nigeria Construction Industry	SA	A	D	SD	Mean	STD	Rank	Decision
1	Policy inconsistencies	39	11	0	0	3.78	0.41	1	Accepted
2	Inadequate infrastructure	40	8	2	0	3.76	0.51	2	Accepted
3	Lack of supply chain visibilities	36	12	1	1	3.66	0.62	3	Accepted
4	Inadequate logistics and transportation.	25	20	5	0	3.40	0.66	4	Accepted
5	Insecurity	30	12	3	5	3.34	0.97	5	Accepted
	Cluster Mean					**3.59**	**0.64**		

Source: Field work, 2025

The table above shows the factors responsible for disruption of supply chain in Nigeria Construction Industry. As shown in the table, respondents rated policies inconsistencies as the top most factors responsible for disruption of supply chain in Nigeria Construction Industry. Other factors accepted include policy inconsistencies, inadequate infrastructure, lack of supply chain visibilities inadequate logistics and transportation as well as insecurity. The cluster mean and standard deviation are 3.59 and 0.64 respectively.

Policy inconsistencies can emanate from various stakeholders, particularly the government. Policy changes like that of fuel subsidy removal of may 2023, took a drastic toll on the economy, particularly the supply chain in Nigeria as asserted by Alli (2024). This also confirms the assertions of Saka & Mudi (2007) which recounted the effects of bad roads and poor transportation systems, highway robbery and security as part of the problem of supply chain management in Nigeria, Asogwa et al (2022) further buttressed the negative effects of killings, bombings, kidnappings, , armed robbery have significant effect on small, and medium enterprise in Nigeria, encouraging measures to control insecurity in order to salvage the economy

Table 10: Attendant Consequences for Disruption of Supply Chain in Nigeria Construction Industry

S/No	Attendant consequences for disruption of supply chain in Nigeria Construction Industry	SA	A	D	SD	Mean	STD	Rank	Decision
1	Materials shortages	42	8	0	0	3.84	0.37	1	Accepted
2	Schedule delays	41	7	1	1	3.76	0.59	2	Accepted
3	Damage to reputation	37	13	0	0	3.74	0.44	3	Accepted
4	Reduced quality	30	15	4	1	3.48	0.73	4	Accepted
5	Cost overuns	32	8	7	3	3.38	0.94	5	Accepted
	Cluster Mean					**3.64**	**0.61**		

Source: Field work, 2025

The table above shows the attendant consequences for disruption of supply chain in Nigeria Construction Industry. As shown in the table, respondents rated material shortages as the top most attendant consequences for disruption of supply chain in Nigeria Construction Industry. Other attendant consequences include materials shortages, schedule delays, damage to reputation, reduced quality as well as cost overruns. The cluster mean and standard deviation are 3.64 and 0.61 respectively. Saka & Mudi (2007) in describing the problems emanating from poor management of supply chain highlighted various factors that can lead to cost overrun including inflation, foreign exchange, freight costs and import tariffs, the authors further stated the problem of late delivery and long lead time which accounts for time overrun and schedules delay as well as material shortages, it can be inferred that infractions emanating from the above repeatedly can lead to loss of contractor reputation (Shehu, *et al* 2016).

Table 11: Strategies for Most Effective Supply Chain in Nigeria Construction Industry

S/No	Statement	SA	A	D	SD	Mean	STD	Rank	Decision
1	Technology integration.	48	2	0	0	3.96	0.20	1	Accepted
2	Risk assessment	47	2	1	0	3.92	0.34	2	Accepted
3	Inventory management	45	3	2	0	3.86	0.45	3	Accepted
4	Alternative sourcing strategies	39	11	0	0	3.78	0.41	4	Accepted
5	Strategic partnership	37	8	2	3	3.58	0.83	5	Accepted
	Cluster Mean					**3.82**	**0.44**		

Source: Field work, 2025

The table above shows the responses on the strategies for most effective supply chain in Nigeria construction industry. As shown in the table, respondents rated technology integration as the most choice. Other strategies for effective supply chain in Nigeria construction industry include technology integration, risk assessment, inventory management, alternative sourcing strategies as well as strategic partnership. The cluster mean and standard deviation are 3.82 and 0.44 respectively.

In addition, the study reveals the strategies for most effective supply chain in Nigeria construction industry. The study identified technology integration, risk assessment, inventory management, alternative sourcing strategies as well as strategic partnership. This finding collaborates with that of Oyewobi and Jimoh (2022) who identified inventory management, strategic partnerships as well as technology integration.

Table 12: Relationship on Level of Awareness of Supply Chain by Construction Industry and Supply Chain Practices in Nigeria Construction Industry

Coefficients					
Model	**Un standardized Coefficients**		**Standardized Coefficients**	**T**	**Sig**
	B	**Std Error**	**Beta**		
(Constant)	1.216	.293		-3.787	.000
Supply chain practices	.571	.064	.756	20.244	.000
R= 0.756; R^2 = .57; F_1200 = 83.125					

From the Table 6, the regression model equation using unstandardized coefficient is:

$Y = B + B_1x_1$

$Y = 1.216 + 0.756x_1$ (1)

Where: Y = level of awareness of supply chain

x_1 = Supply chain practices

The result on the Table reveals that supply chain practices in Nigeria construction industry have positive and significant correlate on level of awareness of supply chain by construction industry β = .756, t statistic of 20.24 and computed p-value of 0.000 which is below the level of significance (0.05) adopted for this study. The Table shows that unit change in level of awareness of supply chain by construction industry leads to an increase in supply chain practices in Nigeria Construction Industry by 0.756 units (β = .756). Moreover, the Table shows that supply chain practices in Nigeria construction industry 57.1% (R_2 = 0.571) variance in level of awareness of supply chain by construction industry. Based on this result, the null hypothesis is rejected which affirms that there is no significant relationship on level of awareness of supply chain by construction industries and supply chain practices in Nigeria Construction Industry is hereby rejected.

Discussion of Findings

After the analysis, the first finding reveals that there is a low level of awareness of supply chain practices in Nigeria Construction Industry. This is in collaboration with Oyewobi and Jimoh (2022) found out that not all construction firms and stakeholders in Nigeria understand what sustainable procurement entails, leading to limited adoption.

Also the study reveals factors responsible for disruption of supply chain in Nigeria Construction Industry. These factors include policy inconsistencies, inadequate infrastructure, lack of supply chain visibilities inadequate logistics and transportation as well as insecurity. This findings is in line with Adenikinju (2015) who identified skilled labor shortages, increased project cost as material lead – time and schedule delays.

The study also shows the attendant consequences for disruption of supply chain in Nigeria construction industry, this disruptions have both economic impact (cost overrun and material shortages, reduced quality), social impact (damage of reputation, schedule delays), as well as environmental impact on the society. This finding is in line with Olawoyin *et al*., (2019) who identified increased project costs, material shortages and lead – time delays as well as skilled labour shortage.

In addition, the study reveals the strategies for most effective supply chain in Nigeria construction industry. The study identified technology integration, risk assessment, inventory management, alternative sourcing strategies as well as strategic partnership. This finding collaborates with that of Oyewobi and Jimoh (2022) who identified inventory management, strategic partnerships as well as technology integration.

The study also reveals the relationship between awareness of supply chain practices in Nigeria Construction Industry and supply chain practices in Nigeria construction industry. Result indicated that awareness of supply chain practices in Nigeria Construction Industry have positive and significant correlate on supply chain practices by Nigeria construction industry.

This study is relevant to all stakeholders; to the client and contractor it shows that material shortage, cost and time overrun as well as reputation damage emanating from disruptions in supply chain management can be mitigated through proper risk assessment and the alternative sourcing strategies and strategic partnerships; Policy makers and government bodies should be aware of the impact of their policies, as this reseach shows that policy inconsistencies ranked highest among factors responsible for disruptions in supply chain.

CONCLUSION

Based on the results of this study, it has been established that *there is* a low level of awareness of supply chain practices in Abuja. We can infer therefore, that the factors responsible for disruption in supply chain including; policy inconsistency, inadequate infrastructure, and inadequate logistics as well as insecurity can be linked to poor awareness of key stakeholders.

The study also identified material shortage, increased project time and cost overruns, reduced quality as well as damaged reputation are consequences of disruptions in supply chain; to mitigate these consequences; awareness needs to be increased on the effect of policy change among stakeholders. Infrastructure to facilitate supply chain needs to be created as well as improved by stakeholders especially the government so as to avoid the disruptions in supply chain network, to avoid the devastating effect of reputation damage contractors and consultants needs adopt effective strategies starting from a thorough risk assessment; ensuring proper technology integration, using alternative sourcing strategies and fostering strategic partnerships to mitigate likely risk associated time, cost and quality and prevent loss of reputation.

From the findings of the study contractors, consultants, and government regulators can propose industry-wide training programs. The study support the Triple Bottom Line (TBL) in the construction industry because it encourages construction companies to measure their performance not just by financial metrics but also by their social and environmental impact thereby promoting sustainability, accountability as well as long – term value creation.

The study focused and elicited responses of 50 professionals of the construction industry with experience working across the 6 geopolitical zones in Nigeria may limit the generalizability of findings to other countries or industries. Additionally, the study's reliance on a specific sampling frame, such as architecture and quantity surveyor may not capture the perspectives of other stakeholders, such as policy makers or regulatory bodies.

The rapidly changing nature of the construction industry and supply chain disruptions may render some findings outdated or less relevant over time. It is on this premise that the researcher suggest that further studies should be carried out on examining the role of digital technologies in mitigating supply chain disruptions or expanding the scope beyond Abuja.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made;

i. More awareness on supply chain should be carried out in construction industry in Nigeria.
ii. Construction industries must integrate technology in carrying out construction works.
iii. There should be regular assessment of potential risks when carrying out supply chain.

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APPENDIX

DEPARTMENT OF QUANTITY SURVEYING
FACULTY OF ENVIRONMENTAL SCIENCE
BINGHAM UNIVERSITY, KARU, NASSARAWA STATE.

EVALUATION OF COMPETENCIES OF SUPPLY CHAIN MANAGERS

Dear Respondent,
I am undertaking a research as titled **— DISRUPTION OF SUPPLY CHAIN AND ITS ATTENDANT CONSEQUENCES**
The outcome of the study is expected to provide clear insight on the current state of awareness and preparedness of construction professionals on supply Chain Management practices.
I would be grateful if you spare some time to complete the questionnaire, which should only take few minutes.
The information provided will be treated with utmost confidentiality and will be used for data analysis for the purpose of this research only.
I would be glad to share the summary of my findings with you, if you provide your contact details at the end of the questionnaire.

Thank you very much for your time.
Yours Faithfully

Abah Emmanuel.

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INTRODUCTION

1. Indicate your answer/response with a tick in the box that corresponds to your choice or where required, give a short-written reply in the space provided.
2. Response provided in section B should be with reference to your level of Awareness of Supply Chain Management Practices.

SECTION A: DEMOGRAPHIC INFORMATION

1. Academic Qualification of Respondent

a. HND [ ] b. B.Sc/B.Tech [ ] c. M.Sc/ M.Tech [ ] d. Ph.D [ ]

2. Years of Working Experience

a. 1-5 years [ ] b. 6-10years [ ] c. 11-15years [ ] d. 15-20years [ ]
e. 21-25 years [ ] f. Above 25 years [ ]

3. Which of the following best describes the services delivered by your firm?

a. Building works [ ] b. Civil Engineering works [ ]
c. Heavy Engineering works [ ] d. Consultancy Sevices [ ]
e. Other (Please Specify)……

4. Please Specify your Professional Qualification

i. NIQS a. MNIQS [ ] b. FNIQS [ ]
ii. NIA a. MNIA [ ] b. FNIA [ ]
iii. NIOB a. MNIOB [ ] b FNIOB [ ]
iv. NSE a. MNSE [ ] b. FNSE [ ] Other Please specify.....

SECTION B: Issues relating to Level of Awareness and Distruption of supply chain Management in Nigeria

1. In your own assessment rate the level of awareness of professionals on the concept of Supply Chain Management?

a. Highly [ ] b. Medium [ ] c. Low[ ] d. Very Low [ ]

2. Please Rate in Your Opinion the Factors Responsible for Disruption of Supply Chain Management in Nigeria.

Part A: Indicate the Extent of your Agreement with the Factors Responsible for Disruption of Supply Chain Management using a Scale of 1 and 5 where: 1= Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Agree and 5= Strongly agree.					
FACTORS RESPONSIBLE FOR DISRUPTION OF SCM	**5**	**4**	**3**	**2**	**1**
Policy inconsistencies					
Inadequate infrastructure					
Lack of supply chain visibilities					
Inadequate logistics and transportation.					
Insecurity					

3. **Please Rate in your Opinion the Attendant Consequences of the Disruption of Supply Chain Management in Nigeria.**

Part B: Indicate the Extent of your Agreement with the Attendant Consequences of the Disruption of Supply Chain Management using a Scale of 1 and 5 where: 1= Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Agree and 5= Strongly agree.					
CONSEQUENCIES OF DISRUPTION OF SCM	**5**	**4**	**3**	**2**	**1**
Materials shortages					
Schedule delays					
Damage to reputation					
Reduced quality					
Cost overuns					

4. **Please Rate in your Opinion the Strategies for most Effective Supply Chain Management in Nigeria.**

Part C: Indicate the Extent of your Agreement with the Following Strategies for most Effective Supply Chain Management in Nigeria using a Scale of 1 and 5 where: 1= Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Agree and 5= Strongly agree.					
Professional Skills of Supply Chain Manager	**5**	**4**	**3**	**2**	**1**
Technology integration.					
Risk assessment					
Inventory management					
Alternative sourcing strategies					
Strategic partnership					

SECTION C: **Issues Relating to Competencies of Supply Chain Managers**

5. **Please Indicate the Extent of your Agreement with the Level of Awareness of Functions of Supply chain Management**

Part C: Indicate the Extent of your Agreement with the Level of Awareness of Functions of Supply Chain Management with the Following Supply Chain Management Practices in Nigeria Using a Scale of 1 and 5 where: 1= Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Agree and 5= Strongly agree.					
Professional Skills of Supply Chain Manager	**5**	**4**	**3**	**2**	**1**
Information Dissemination					
Management Leadership					
Early Appointment of Partners					
Increased use of collaborative procurement options					
Transparency in financial matters					

6. **Please Indicate the Extent of your Agreement with Factors Influencing the Competencies of Supply Chain Management**

Part C: Indicate the Extent of your Agreement with the Following Factors Influencing the Competencies of Supply Chain Managers using a Scale of 1 and 5 where: 1= Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Agree and 5= Strongly agree.					
Professional Skills of Supply Chain Manager	**5**	**4**	**3**	**2**	**1**
Information Dissemination					
Management Leadership					
Early Appointment of Partners					
Increased use of collaborative procurement options					
Transparency in financial matters					

7. **Please Indicate the Extent of your Agreement with the Possible ways the Construction Industry can Influence Competencies of Supply Chain Managers**

Part C: Indicate the Extent of your Agreement with the Following Possible Ways Construction Industries can Influence Competencies of Supply chain Managers in Construction Industry. using a Scale of 1 and 5 where :1= Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Agree and 5= Strongly agree.					
Professional Skills of Supply Chain Manager	**5**	**4**	**3**	**2**	**1**
Certification and professional development.					
Training and development programs					
Technology adoption					
Mentorship and coaching					
Collaboration and knowledge					