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### **ABSTRACT**

Coordination inefficiencies working drawings and specifications continue to affect project quality and delivery timelines in the building industry in Nigeria. This study examines the frequency and characteristics of these problems and assesses how they affect the quality and compliance of documents. descriptive survey involving 506 construction professionals, including architects, engineers, contractors, and surveyors, was conducted using structured questionnaires. The

MPACT OF FREQUENCY AND TYPES
OF COORDINATION ISSUES ON
WORKING DRAWINGS AND
SPECIFICATIONS IN THE NIGERIAN
CONSTRUCTION INDUSTRY

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#### INTRODUCTION

ffective coordination in working drawings and specifications is a universal challenge in the construction industry, influencing project quality, cost, and timelines. Globally, poor documentation practices and weak interdisciplinary communication have been linked to design errors, project delays, and contractual disputes (Ezeldin & Alhady, 2018; Yap, Chong, Skitmore, & Lee, 2020). In developed countries, technologies such as Building Information Modelling (BIM) and automated quality evaluation tools are increasingly adopted to mitigate these problems (Bello & Ayegba, 2024). However, even in advanced contexts, research shows that communication breakdowns and regulatory misalignments continue to create inefficiencies (Kiani Mavi, Denise, Neda, Richard, Alistair, & Ross, 2021).



data were analyzed using descriptive statistical methods, including frequency distributions, percentages, means, and relative index calculations. Findings revealed that 71.3% of respondents were female, and most (51.4%) held a master's degree, reflecting a highly educated sample. Coordination issues were prevalent, with professionals reporting frequent revisions of documents (Relative Index = 0.755) and strong agreement that cross-disciplinary collaboration improves drawing quality (RI = 0.792). Weak integration of regulatory updates was also highlighted (RI = 0.734). Participants recommended broader professional engagement, targeted training in documentation standards, adoption of digital coordination tools, and strengthened enforcement mechanisms. The study concludes by advocating for modernized quality control strategies and inclusive project documentation processes to improve communication, regulatory adherence, and output quality.

**Keywords:** Compliance, Coordination Issues, Nigerian Construction Industry, Specifications, Working Drawings.

In Africa and other developing regions, these challenges are more pronounced due to fragmented industry structures, resource constraints, and inconsistent regulatory enforcement (Hamma-Adama, Salman, & Kouider, 2017; Mwakamui & Ntshwene, 2024). Limited adoption of digital tools, reliance on paper-based documentation, and siloed professional practices make coordination particularly difficult.

Within the Nigerian construction landscape, working drawings and specifications serve as essential components that communicate design intent, define material requirements, and ensure adherence to performance standards (Owolabi, Harry, Adewumi, Onamade, & Alagbe, 2024; Emesiobi, Otuonuyo, Adewumi, Asaju, & Onamade, 2024). These documents guide project execution, support regulatory compliance, and foster cost and quality control (Alugbue, Otuonuyo, Adewumi, & Asaju, 2024). Despite their importance, challenges related to cross-disciplinary coordination continue to compromise their effectiveness, often leading to errors, project delays, and disputes (Okolie, Ezeokoli, & Fadumo, 2020; Adewumi, Onamade, David-Mukoro, Bamiloye, Ogundele, Paul, & Olatunji, 2025). A key contributor to these challenges is limited collaboration among stakeholders—architects, engineers, and contractors frequently operate in silos, resulting in fragmented documentation and inconsistent implementation (Adewumi, Asaju, Bello, Atulegwu, Ibhafidon, David-Mukoro, Otuonuyo, & Ogunyemi, 2025). The absence of integrated review systems and the underutilization of modern digital tools further worsen these coordination gaps (Owolabi et al., 2024). Studies such as those by Kiani Mavi et al. (2021) have



emphasized that breakdowns in design communication and regulatory integration directly affect construction outcomes.

Technologies like automated quality evaluation tools and Building Information Modelling (BIM) offer workable ways to improve cooperation and lessen inconsistencies, yet their adoption within the Nigerian context remains limited due to infrastructural, educational, and financial constraints (Chinonyerem, Edeh, Yusuf, Omotola, Joshua, Olasunkanmi, & Animashaun, 2025; Adewumi, Onamade, Asaju, & Adegbile, 2023; Oru, Adewumi, & Asaju, 2024).

The purpose of this study is to investigate how working drawings and specifications in the Nigerian construction sector are affected by the frequency and kinds of coordination challenges. While the specific objectives are to: examine the demographic traits of the construction industry specialists who create and carry out working drawings and specifications, assess the challenges and possible solutions in cross-disciplinary coordination during the development of working drawings and specifications, evaluate the frequency and types of coordination issues affecting these documents in Nigerian construction projects and examine compliance levels in working drawings concerning legal, regulatory, and quality standards.

#### LITERATURE REVIEW

#### The Function of Working Drawings and Specifications in Construction

Working drawings and specifications are the foundation for transforming design concepts into construction realities. They formally communicate material requirements, dimensions, processes, and performance standards (Owolabi et al., 2024; Emesiobi et al., 2024). Specifications focus on written technical standards, while drawings visually express design intent and spatial coordination (Alugbue et al., 2024; Adewumi et al., 2025).

In Nigeria, fragmented industry structures make these documents even more critical. Poor documentation is frequently linked to misinterpretations, cost escalation, and project delays (Okolie et al., 2020; Hassan, Adewumi, & Olukunga, 2024). While several studies emphasize the benefits of comprehensive documentation in reducing disputes (Ezeldin & Alhady, 2018; Asaju, Adewumi, Onamade, & Alagbe, 2024), others note that the absence of integrated review systems limits effectiveness, even when documents are detailed (Adewumi et al., 2025b). This indicates that accuracy alone is insufficient without proper coordination mechanisms.

### **Cross-Disciplinary Coordination Challenges in Nigerian Construction Industry**

A recurring challenge in Nigerian construction is the lack of effective cross-disciplinary coordination. Teams often work in silos, causing breakdowns in information sharing between architects, engineers, and builders (Adewumi, et al., 2025b; Hassan, et al., 2024). According to Adewale et al. (2018), misalignments between mechanical,



electrical, and structural drawings are frequent due to insufficient interdisciplinary collaboration.

Karisa (2023) noted that project variations often stem from changes that are not communicated effectively across disciplines. This leads to scope creep, rework, and mismatched construction sequences. Fragmented communication, underdeveloped review mechanisms, and an absence of integrated digital workflows continue to hamper coordination efforts across professional boundaries.

Further, Emesiobi et al. (2024) highlighted that imprecise specifications exacerbate coordination breakdowns, while Unegbu et al. (2025) emphasized insufficient regulatory compliance as a major contributor. Together, these findings suggest that coordination difficulties in Nigeria are multi-dimensional, involving technical, regulatory, and organizational shortcomings.

### Types and Prevalence of Coordination Issues

Coordination failures manifest in various forms, including outdated revisions, missing information, overlapping scope definitions, and errors in dimensional accuracy. Adekunle et al. (2022) identified low adoption of digital tools and the reliance on paper-based communication as major contributors to these problems. The absence of centralized review systems often causes version mismatches, particularly during the construction phase.

Studies by RTF (2023) and According to Okonta et al. (2024), poor coordination can result in delays in regulatory clearances, cost overruns, and eroded confidence. Furthermore, the lack of standardized templates and inconsistent terminology exacerbates these issues, especially in large-scale or public-sector projects.

### **Compliance and Regulatory Gaps**

Legal compliance is a central goal of construction documentation, but weak enforcement of building codes and standards in Nigeria undermines this objective. According to Unegbu et al. (2024), regulatory bodies often lack the capacity to monitor compliance effectively, allowing outdated or incomplete documentation to pass through unchecked.

Chinonyerem et al. (2025) noted that while BIM adoption can enhance compliance tracking and coordination efficiency, its implementation is still minimal in Nigeria. Bello and Ayegba (2024) added that without institutional mandates, new tools such as BIM may remain underutilized despite their potential.

### **Tools and Strategies for Improvement**

Scholars have proposed several strategies to overcome coordination challenges. Tor et al. (2025) advocated for early stakeholder engagement to reduce friction in later



project stages. Similarly, Zickefoose (2020) recommended communication strategies that prioritize highfrequency, short-duration meetings to enhance team alignment.

Technological innovations such as BIM and real-time quality control systems are also gaining attention. Bello and Ayegba (2024) highlighted that BIM not only supports integrated design but also enables conflict detection before physical implementation. Automated review tools can also assist in identifying non-compliance and correcting inconsistencies in real time (Okonta et al., 2024).

In addition to technology, capacity-building initiatives are essential. Structured training in specification writing and interdisciplinary communication was recommended by Alade et al. (2025), while Ejohwomu et al. (2022) suggested institutional reforms to align industry practices with global coordination standards.

### **Identified Research Gaps**

Although numerous studies discuss coordination, three key gaps remain:

- 1. Limited quantification of coordination issues: most works describe challenges without measuring frequency or severity.
- 2. Weak empirical evidence in Nigeria: few studies link coordination problems directly to project outcomes such as cost overruns or delays.
- 3. Minimal evaluation of digital adoption: BIM and automated review tools are conceptually discussed but rarely assessed through field-based research in Nigerian projects.

This study addresses these gaps by using primary survey data from 506 professionals to measure the frequency, types, and impacts of coordination issues, while also evaluating compliance and proposing practical improvement strategies for the Nigerian context.

#### **Theoretical Framework**

This study is anchored in Coordination Process Theory, which emphasizes that successful project outcomes depend on structured communication, clarity of roles, and the integration of evolving standards (Dwivedi, 2021; Mirzaei, Mabin, & Zwikael, 2024). The theory highlights that coordination failures are not merely technical flaws but systemic challenges arising from fragmented communication and stakeholder misalignment. By applying this theoretical lens, the study interprets coordination challenges in Nigerian construction as a result of broader organizational and communication inefficiencies, rather than isolated mistakes in documentation.

#### **Conceptual Framework**

This study is conceptually framed around the relationship between coordination processes, working drawing quality, and project outcomes. Effective coordination is conceptualized as a function of stakeholder communication, document accuracy, and



regulatory compliance. When these elements are adequately integrated, the quality of working drawings improves, leading to better project outcomes in terms of cost, time, and performance. Conversely, weak coordination across these dimensions increases the likelihood of documentation errors, frequent revisions, and disputes. The diagram below illustrates how communication, accuracy, and compliance collectively influence working drawing quality, which in turn shapes overall project performance.

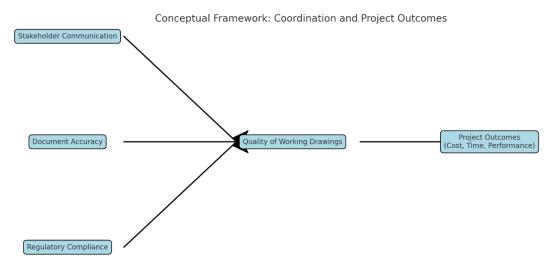


Fig 1: Conceptual framework of coordination issues in working drawings and project outcomes.

Sources: Authors Fieldwork, 2025

#### **RESEARCH METHODOLOGY**

This study employed a descriptive survey research design to investigate coordination issues affecting working drawings and specifications in the Nigerian construction industry. The target population comprised professionals who are directly involved in the creation, review, or implementation of construction documents, specifically architects, engineers, contractors, surveyors, and estate managers.

A purposive sampling technique was used to ensure that only respondents with relevant experience participated in the study. A total of 506 valid responses were collected across various Nigerian states, with a notable concentration of participants from Lagos, reflecting its prominence in national construction activities.

Data collection was conducted using a structured questionnaire designed to capture demographic information, coordination challenges, frequency and types of documentation issues, and levels of regulatory compliance. The questionnaire employed a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5), allowing respondents to express the degree of their agreement or experience with listed statements.



To ensure instrument validity, the questionnaire was reviewed by two academic staff members with expertise in architecture and construction management. Their feedback was used to refine the wording and structure of the questions, ensuring clarity, relevance, and alignment with the study objectives.

The data were analyzed using descriptive statistical methods, including frequency distributions, percentages, means, and relative index calculations. The results were presented in tabular form for clarity and ease of interpretation.

This methodology was selected to allow for broad participation across professional roles and regions, enabling a well-rounded understanding of coordination dynamics in the Nigerian construction context.

#### FINDINGS AND REVIEWS

The findings from the questionnaire administered to 506 professionals in Nigeria's construction sector are presented and discussed in this section. The results are organized to reflect the study's objectives: demographic profiles, coordination challenges, types and frequency of coordination issues, and legal/regulatory compliance.

#### **Demographics Characteristics of Respondents**

The respondents' backgrounds are displayed in Table 1. According to the gender distribution, there were 28.7% men and 71.3% women. This shows that working drawings and specifications are used by a large number of female experts in Nigeria's construction industry, which may be a reflection of recent trends toward increased female participation in architecture and related fields. According to the age distribution of the respondents, 41.5% were between the ages of 21 and 30, 31.6% were between the ages of 31 and 40, and 15.6% were between the ages of 41 and 50. Just 5.1% were younger than 20, and 6.1% were older than 51. Young and mid-career professionals make up the majority of the workforce, as evidenced by this trend, and they actively participate in project design and documentation.

In terms of education, 34.6% held a bachelor's degree, while the majority (51.4%) held a master's degree. Just 7.7% of respondents said they had a doctorate, while 5.7% said they had less than a first degree. This implies that the respondents had a relatively high level of education, which validates their opinions on coordination problems and working designs.

Table 1: Demographic characteristics of the respondents

Gender	N=506	Percentage (%)	Cum %age
Female	361	71.34387352	71.3438735
Male	145	28.65612648	100
Total	506		



Age	Frequency (N=506)	Percentage (%)	Cum %age
Less than 20 years	26	5.14	5.14
21 - 30 years	210	41.50	46.64
31 - 40 years	160	31.62	78.26
41 - 50 years	79	15.61	93.87
51 years & Above	31	6.13	100.00
Total	506		
Level of Education	N=506	Percentage (%)	Cum%age
Below First Degree	29	5.73	5.73
First Degree (HND/BSc.)	175	34.58	40.32
Master's Degree	260	51.38	91.70
Doctorate Degree	39	7.71	99.41
Others	3	0.59	100.00
Total	506		
Years	N=506	Percentage (%)	Cum%age
o - 5 years	148	29.25	29.25
6 -10 years	200	39.53	68.77
11 -15 years	107	21.15	89.92
16-20 years	33	6.52	96.44
Above 20 years	18	3.56	100.00
Total	506		
Professionals	N=506	Percentage (%)	Cum%age
Contractor	28	5.53	5.53
Architect	345	68.18	73.72
Engineer	86	17.00	90.71
Surveyor	29	5.73	96.44
Others	18	3.56	100.00
Total	506		

Source: Authors' field work, 2025

Regarding experience, 39.5% of respondents had 6–10 years of practice with working drawings, 29.3% had 0–5 years, and 21.1% had 11–15 years. Fewer had above 20 years of experience (3.6%). This means the sample was composed mainly of mid-level professionals with reasonable exposure to industry challenges.

Professionally, architects made up 68.2% of respondents, reflecting their primary role in working drawing preparation and specification, while engineers accounted for 17%, surveyors 5.7%, and contractors 5.5%. Other professions represented 3.6%, showing that the data included multidisciplinary perspectives despite architects being predominant.

These demographics suggest that coordination issues are being assessed by a predominantly young, highly educated, and architect-led professional base. This



profile enhances the validity of findings but also implies that solutions may be shaped by the perspectives of designers more than contractors or regulators.

### **Challenges and Solutions in Cross-Disciplinary Coordination**

Table 2 presents respondents' views on challenges and solutions in cross-disciplinary coordination. Overall, the findings reveal strong agreement that effective coordination among disciplines improves the quality of working drawings, with a relative index (RI) of 0.792 and a mean score of 3.96, even though this item ranked 7th among the five statements considered. The highest-ranked statement, with a relative index of 0.772, was the assertion that crossdisciplinary coordination issues are often resolved within the working drawings themselves, suggesting that professionals see working drawings as a central platform for addressing integration challenges across disciplines.

Table 2: Challenges and Solutions in Cross-Disciplinary Coordination

CHALLENGES AND SOLUTIONS IN	Level		of			Total	Efx	Mean	Relative	Rank
CROSS-DISCIPLINARY	Agreer	nent	using			(Ef)			Index (RI)	
	the Lik	ert Sc	ale					Score		
COORDINATION	1	2	3	4	5					
								(Efx/Ef)		
Coordination among disciplines	21	20	96	191	178	506	2003	3.958	0.792	7
improves the quality of working										
drawings.										
Working drawings effectively	13	25	98	248	122	506	1959	3.872	0.774	2
address the needs of all involved										
disciplines.										
Cross-disciplinary coordination	14	21	103	253	115	506	1952	3.858	0.772	1
issues are often resolved in the										
working drawings.										
I find that working drawings	11	24	101	237	133	506	1975	3.903	0.781	3
facilitate effective communication										
between different disciplines.										
The involvement of multiple	12	27	108	224	135	506	1961	3.875	0.775	4
disciplines enhances the accuracy of										
working drawings.										

Source: Authors' field work 2025

Respondents also generally agreed that working drawings address the needs of all involved disciplines (RI = 0.774, ranked 2nd) and facilitate effective communication among project teams (RI = 0.781, ranked 3rd), highlighting their role as a coordination and communication tool.



Similarly, respondents agreed that involving multiple disciplines improves the accuracy of working drawings, with a mean score of 3.88 and an RI of 0.775, ranking 4th overall.

An RI of 0.792 indicates broad consensus that effective cross-disciplinary coordination enhances the quality of working drawings. In practice, this suggests that projects which embed structured collaboration, such as joint design review sessions or integrated project delivery models, are more likely to produce accurate documentation with fewer costly revisions. Respondents also strongly agreed that working drawings facilitate communication and address the needs of multiple disciplines, reinforcing their role as a central coordination tool.

### **Frequency and Type of Coordination Issues**

Table 3 illustrates respondents' perspectives on the frequency and types of coordination issues affecting working drawings. Overall, there was a strong perception that coordination problems are common, with a mean score of 3.79 and a relative index (RI) of 0.757, ranking third among the items assessed. This suggests that professionals regularly encounter coordination challenges during working drawing reviews.

Respondents also agreed that working drawings often require adjustments due to coordination issues (RI = 0.755, mean = 3.78, ranked second), reinforcing the view that errors or discrepancies are a frequent occurrence and that revisions are a routine part of construction documentation processes.

Table 3: Frequency and Type of Coordination Issues

FREQUENCY AND TYPE OF COORDINATION		Likert Level of Scale Agreement						Total (Ef)	Efx	Mean Score	Relative Index (RI)	Rank
ISSUES	1	2	using the	3	<b>4</b> 241	5				(Efx/Ef)		
Coordination issues are common in the working drawings I review.	12	33						506	1916	3.787	0.757	3
Working drawings frequently require adjustments due to coordination issues.	13	32	109	253			99	506	1911	3.777	0.755	2
Coordination problems in working drawings are resolved promptly.	5	30	129	264			78	506	1898	3.751	0.750	1
The type of coordination issues encountered in working drawings affects project outcomes.	20	26	113	231			116	506	1915	3.785	0.757	5



The	frequen	cy of	12	23	104	238	129	506	1967	3.887	0.777	6
coordi	nation	issues										
impac	ts the	overall										
quality	, of	working										
drawir	ngs.											

Source: Authors' field work 2025

The highest-ranked statement, with an RI of 0.750 and a mean score of 3.75, reflected agreement that coordination problems in working drawings are generally resolved promptly. While this shows some confidence in current mitigation efforts, the mean score suggests there is still room for improvement.

Respondents also noted that the types of coordination issues encountered can significantly affect project outcomes (RI = 0.757, ranked fifth), indicating that, beyond frequency, the nature of these issues, such as dimension mismatches or unclear specifications, can have a pronounced influence on cost, time, and quality.

Finally, the item with the highest relative index (RI = 0.777) emphasized that the frequency of coordination issues impacts the overall quality of working drawings, confirming that these problems, if left unaddressed, can compromise documentation standards and ultimately project performance.

With RI values above 0.75, these findings demonstrate that professionals not only encounter coordination issues frequently but also see revisions as an expected part of the documentation process. While this adaptability indicates resilience, it also points to systemic inefficiencies in Nigeria's construction documentation. Resources are consumed in repeatedly revising documents instead of reducing errors at the design stage. The relatively high RI values highlight the potential for digital solutions such as BIM to reduce these inefficiencies by detecting conflicts before construction begins.

### **Legal and Regulatory Compliance**

Table 4 presents respondents' views on legal and regulatory compliance in working drawings. Respondents generally agreed that working drawings consistently comply with the latest building codes and regulations, with a mean score of 3.73 and a relative index (RI) of 0.746, ranking fourth among the items assessed. This suggests reasonable confidence in adherence to legal standards. However, there was slightly less confidence about whether working drawings fully reflect current legal requirements, as shown by a lower RI of 0.741 and a mean score of 3.71, ranking seventh. This may point to occasional gaps in updating or interpreting relevant regulations during design documentation.

Similarly, the integration of new codes and regulations was perceived as less effective, with a mean score of 3.67 and RI of 0.734, ranking sixth overall, suggesting that managing regulatory updates in working drawings remains a challenge for some professionals.



Respondents agreed that working drawings are regularly updated to meet code changes (RI = 0.745, mean = 3.72), but also indicated there is still room to improve consistency and timeliness in this process.

Table 4: Legal and Regulatory Compliance

LEGAL AND DEGLILATORY	<u> </u>					<b>-</b>			Relative	
COMPLIANCE	Scale		Level of Agreement using the Likert			Total (Ef)	Efx	Mean Score (Efx/Ef)	Index (RI)	Rank
	1	2	3	4	5					
Working drawings	22	35	106	238	105	506	1887	3.729	0.746	4
consistently comply with the										
latest building codes and regulations.										
I am confident that working	20	24	130	243	89	506	1875	3.706	0.741	7
drawings reflect current legal										
requirements.										
The integration of new codes	13	39	130	243	81	506	1858	3.672	0.734	6
and regulations into working										
drawings is effectively managed.										
Working drawings are	18	33	115	245	95	506	1884	3.723	0.745	6
regularly updated to meet										
changes in building codes.										
Compliance with building	15	29	115	249	98	506	1904	3.763	0.753	4
regulations is adequately										
addressed in the working										
drawing.										

Source: Authors' field work 2025

Finally, respondents felt that compliance with building regulations is adequately addressed in working drawings, as shown by an RI of 0.753 and a mean score of 3.76, ranking fourth. This highlights an overall positive view of compliance, although improvements could still be made in fully integrating new and revised regulatory requirements.

The RI of 0.734 suggests that Nigerian construction professionals face difficulties in consistently updating working drawings to reflect current legal requirements. This gap increases the risk of non-compliance, regulatory disputes, or costly redesigns. By contrast, the relatively higher RI for general compliance (0.753) indicates confidence in meeting established standards, even if new updates are not always incorporated promptly. The findings highlight the need for institutionalized systems, such as mandatory continuous professional development and regular regulatory audits, to ensure documents remain aligned with evolving building codes.



#### **Overall Implications**

Taken together, these findings confirm that coordination challenges are both frequent and impactful, influencing project quality, cost, and timelines. High RI values for coordination effectiveness (0.792) show strong awareness among professionals of the importance of collaboration. However, lower RI values for regulatory integration (0.734) reveal gaps in aligning documentation with evolving codes. These patterns underscore the need for improved cross-disciplinary collaboration, broader adoption of digital tools, and stronger regulatory enforcement to enhance the reliability of working drawings in Nigeria's construction industry.

#### CONCLUSION AND RECOMMENDATIONS

#### Conclusion

This study examined the impact of coordination challenges on working drawings and specifications in the Nigerian construction industry, drawing on responses from 506 professionals across multiple disciplines. The findings confirmed that coordination inefficiencies are frequent and have significant consequences for project quality, cost, and timelines. Professionals widely agreed that effective cross-disciplinary collaboration enhances the accuracy and quality of working drawings (RI = 0.792), but also reported frequent revisions due to documentation errors (RI = 0.755) and weak integration of regulatory updates (RI = 0.734).

These results underscore that while professionals recognize the value of coordination, systemic barriers, such as fragmented collaboration, underutilization of digital tools, and inconsistent regulatory enforcement, continue to undermine documentation quality. The study contributes to knowledge by quantifying the frequency and types of coordination issues, an area where previous research has been largely descriptive.

#### **Limitations and Future Research**

This study is limited in two main ways. First, the data were drawn exclusively from Nigerian professionals, which may limit the generalizability of findings to other contexts. Second, the reliance on self-reported survey data introduces potential response bias, as participants may overestimate or underestimate coordination challenges.

Future research could address these limitations by:

- 1. Conducting comparative studies across multiple developing countries to highlight contextual similarities and differences.
- 2. Applying case study or mixed-method approaches to triangulate survey responses with project documentation audits.
- 3. Evaluating the effectiveness of BIM and other digital coordination tools in reducing errors and improving compliance in real projects.



#### Recommendations

Based on the study's conclusions, the following recommendations are proposed:

- 1. Strengthen Cross-Disciplinary Collaboration: Regular workshops, design review meetings, and early stakeholder engagement should be institutionalized to minimize coordination gaps and reduce costly revisions.
- Enhance Training in Documentation Standards: Professional bodies should organize continuous professional development programs on specification writing and interdisciplinary communication to improve accuracy and compliance.
- 3. Adopt Digital Coordination Tools: Wider adoption of BIM and electronic document management systems should be encouraged to reduce errors, detect conflicts early, and support real-time collaboration.
- 4. Implement Regular Regulatory Audits: Regulatory agencies should enforce periodic audits of working drawings to ensure they reflect updated codes and legal requirements.
- 5. Encourage Client and Contractor Involvement: Clients, consultants, and contractors should be engaged from the early project stages to foster shared understanding and align expectations.

If implemented, these measures would significantly improve coordination in working drawings and specifications, thereby enhancing project quality, reducing delays, and strengthening regulatory compliance within Nigeria's construction sector.

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