

Concordant and Discordant Risk Management Practices in Nigerian Construction Industry

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Abstract: This theoretical paper presents and argue that risk management issues bedeviling Nigerian Construction Industry (NCI) results from narrow focus of previous studies on the risk management. As such, despite the phenomenon have been studied for almost two decades—2010 to 2022—in Nigerian context, the industry is still affected by mismatch of decisions within internal/external stakeholder group as well as between internal and external stakeholder groups. Based on a combination of both sets of classical and enterprise risk management theories, the study conceptualized a perception of the two NCI stakeholder groups in a project organizational setting. And using qualitative research approach, sixteen (16) stakeholders—eight (8) in each of internal and external stakeholder groups—were interviewed based on Hegelian dialectic approach to test the conceptual framework of the stakeholder perceptions. The results are analyzed by Braun and Clerk’ thematic analysis using NVivo, and themes and subthemes emerged forming a comparison diagram of the NCI’s stakeholders perceptions on five risk management practices—Avoid, Retain, Share, Mitigate, and Transfer. Findings indicate that three (i.e., avoid, share, mitigate) of these risk management practices are concordant in that less/no perceptual conflict is likely to occur both within and between the two stakeholder groups. Whereas two (i.e., retain, transfer) are discordant in that they represent an uneasy choice likely to trigger perceptual conflict both within and between the two stakeholder groups, and thus supporting the conceptual framework. Consequently, this study shows that developing strategies to curb the risks bedeviling public infrastructure building project in NCI depends on a better understanding of the perceptions of both internal and external stakeholders involved in risk management practices in public infrastructure building projects since stakeholder perception is crucial in any attempt to devise a risk management strategy for common stakeholders involved in a project.

Keywords: Risk Management, Stakeholders, Nigeria Construction Industry, Conceptual Framework.

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I. INTRODUCTION

The subject of risk management pertaining to building projects in Nigeria has been in discussion for a long time, and stakeholders are being involved in academic research. However, the studies, which carries along the stakeholders, underexplored the universally grouping of stakeholders (i.e., internal/external or primary/secondary) involved in building infrastructure projects. As such, risk management has been studied extensively, as indicated by extant literature, in the context of Nigerian Construction Industry (NCI)—Aminu (2013), Bashir (2012), Belel and Mahmud (2012), Baloi (2021), Ezejiafor (2018), Fatoki (2017), Oyewobi et al. (2012), Odeyinka (2008), and Ojo (2010), Akoh (2018) Dosunmu (2022).

Specifically, Fatoki (2017) questioned whether stakeholders are actively involved in a project. But the study mainly focused on clients’ consideration of the rights of the community as a factor of risk management in a building project; and hence the study was on external stakeholders

only since community are among the external stakeholders in construction project. Ezejiafor (2018) and Oyetobi et al. (2021) both examined risk management of design variables, specifically from designers’ views. Although they formed the designers’ opinion, it was only on design variables rather than risk factors; and more importantly both the studies only selected one group of stakeholders (i.e., designers, whom are internal stakeholders) rather than an all-inclusive approach of carrying other stakeholders—contractors, regulatory agencies, etc.—along.

Furthermore, Aminu (2013) and Bashir (2012) explored risk management responses and identified few responses as attitudes of the subjects—i.e., contractors, still indicating that the study involved only contractors who are internal stakeholders in construction project. And although Belel and Mahmud (2012) slightly differ from the above studies by investigating risk management regarding the relationship between cash flow and adherence to specification, the survey was, in a sense, respondents’ view on the two variables since some categories of the research respondents were architects,

builders, and engineers who might not precisely relate the two variables. Similarly, both Odeyinka (2008) and Ojo (2010) described construction risk, but in relation to safety and adherence to safety regulations, respectively.

Recently, two risk management frameworks have been developed, in separate studies, by Akoh in 2018 and Dosunmu in 2022. The frameworks were also short of laying a ground work to better understand NCI's risks menace since Akoh's framework was narrow in that it was developed mainly for road infrastructure construction projects as opposed to range of various types of construction infrastructure projects developed in the NCI. And Dosunmu's framework focused narrowly on cost variables that bring about cost overrun by the difference between initial cost and final account. In essence, what those studies considered was rather one group of either internal stakeholders or external stakeholders, leaving out the need for holistic approach of involving both internal and external stakeholders in a single study in order to avoid under-representation, balance empirical since both groups are social actors in the NCI. Consequently, the theoretical gap exists.

This study, therefore, argues that developing strategies to curb risks bedeviling public infrastructure building project in NCI depends on a better understanding of the perceptions of both stakeholders of the public infrastructure building projects regarding risk management practices for any effective risk management policy. Stakeholder perception is crucial in any attempt to devise a risk management strategy for common stakeholders involved in a project.

II. LITERATURE REVIEW

➤ *Role of Stakeholders in Projects*

Stakeholders are the people or groups affected by the new product or service. Since the organization will rely on various stakeholders prior to developing a project plan (where role and responsibilities are typically defined), it is important to understand the roles and responsibilities early in the process (Yun, Lo, & Wan, 2016)". As development of the project plan, it will determine the specific roles and responsibilities for stakeholders and team members in the project, which may vary from those identified below due to project size, scope, complexity, and the organizational structure of the agency/institution (Heravi, Coffey, & Trigunasyah, 2015)."

Literature from the Project Management Institute (PMI, 2008) indicates that project stakeholders typically comprise a project manager, the customer/end user, performing organizations (the firms whose employees directly participate in realizing the project), project team members, the project management team, the project sponsor, other people of influence, and the project management organization (PMO)."

Key stakeholders for any project typically come from inside the organization and are normally those who have endorsed or identified the need for project activity. However, they could also be external clients or suppliers, as they might be directly affected by the resulting changes of the project

(Bosh-Sijtsema & Tjell, 2017). They need to be identified prior to the project proposal being discussed and be the driving force and sponsor for the project through all stages from development to training, implementation, and support (White, Stasis, & Lindkuist, 2016).

➤ *Perception of Stakeholders on Project Risk*

To effectively manage risks in construction projects, it is crucial to comprehend how different stakeholders perceive and respond to risks. This is because Flyvbjerg, Levvntij, and VonHomann, (2013) emphasized the importance of stakeholder involvement in risk identification and mitigation, arguing that incorporating diverse perspectives enhances the overall risk management process. It is widely agreed that a successful project is based on careful analysis of all risks the project is likely to bear during its economic life. Wu, Kim, and Xin (2019) argued that such risks may arise either during construction phase or during operating phase. It is interesting to note that both the phases—construction and operation—are involved by various stakeholders. Therefore, this collaborative approach aligns with the participatory model of risk management, where stakeholders actively contribute to decision-making processes (Kutch & Hall, 2010). Ultimately, perceptions of the stakeholders involved in a building project regarding risks and risk management is important.

➤ *Perceptions of Internal Stakeholders*

• *Client:*

Project owners and investors often view risks through the lens of financial and schedule impact (Gatti, 2008). They are concerned about cost overruns, project delays, and the potential for investments not to yield expected returns. Their primary focus is safeguarding their monetary interests and ensuring project success within budget and on time (Chapman, 2001).

• *Contractors:*

Contractors are tempted to retain risks in a project. This is true and a widespread practice in corporate finance settings, according to Gatti (2009). One reason for such temptation, as identified by Charongamm and Yen (2019), is because risk transfers to other parties can be expensive or the cost of insurance policies is excessive compared to the effects determined by that risk. Therefore, the contractor usually implements internal procedures for the control and prevention of risks (Folarunso, 2016). On the other hand, Caltrans (2016) noted that some contractors perceive an opportunity as a threat, whereas some perceive a threat as an opportunity. Poyam and Amin (2019) conceded this by submitting that the risk concept varies based on people's understanding, experience, and attitudes. This attitude is more pronounced when the contractor enters a new market (Baloi, 2016). Contractors and Subcontractors: Contractors tend to focus more on project execution risks. They are concerned about issues such as inadequate project specifications, changes in scope, labour disputes, and material availability. Contractors aim to complete projects profitably while managing operational risks that could affect their performance and reputation.

- *Subcontractors:*

This perception is also shared with subcontractors and material suppliers simply because the entities' operations are funded by the corporate financing option. As such, the subcontractors are wary. It is a standard norm, argued by Peterson (2017), that in construction finance, the main contractor uses subcontractors' available cash to fund the project up until payment is received from the project owner. This happens by utilizing the subcontractors' material and labour resources to build the work. Contractual arrangements that allow suppliers or subcontractors to assume a portion of the risk on a project are an additional method. Talking with the project's stakeholders and coming to an agreement on the risks that each party must accept would be the best course of action. The risks that each party is willing to take must also be decided by the customer/client and general contractor.

- *Suppliers:*

Suppliers and material providers are concerned about market and supply chain risks, such as price fluctuations, material shortages, and transportation issues. They aim to maintain a stable supply chain, secure payment, and safeguard their business interests. (8) Insurance and Legal Entities: Insurance and legal entities view risks from a legal and liability standpoint. They are concerned about potential claims, disputes, and the legal ramifications of construction-related incidents. Their role is to provide legal and financial protection and ensure compliance with insurance policies (Baartz, Kantzkel, & Tom, 2003).

➤ *Perceptions of External Stakeholders*

- *Influencers/Financiers:*

While in corporate finance internal stakeholders—contractors, suppliers—retain risk to cut down costs, Gatti (2009) argued that lenders/financiers hardly accept financing a project subject to risks that are internalized. This is one aspect of project finance. Hence, risk transfer by allocating to one of the parties is more considered in project finance, where every counterparty can bear the cost of the risk it is best able to control and manage (Hans et al., 2018). Within external stakeholders themselves, some risks are perceived to be borne by others. As Fatoki (2018) identified some risks, such as interest rate risks, inflation risks, exchange risks, regulatory risk. These are the government's direct responsibilities. Sometimes, cost overrun is perceived by the contractor as the result of inflation risk (Abanis et al., 2019).

- *Gov't/Regulators:*

For the government as a stakeholder, when businesses are failing by the risk of unsuccessful investment, at times necessary steps must be taken. These as posited by Akintoye and McLeod (2015) include financial interventions to rescue the economy. On other occasions, especially when the government is the end-user of the project, it will be affected by several risks, one of which Fatoki (2018) identified as operational risks. More specifically, according to Ezejafor (2016) inferior performance/ quality issues. Government and regulatory bodies are concerned with legal and compliance risks. They ensure construction projects adhere to building codes, environmental regulations, and safety standards. Their

primary objective is to protect the public interest, safety, and the environment through regulation and enforcement. Government agencies and regulatory bodies shape the legal and regulatory framework within which construction projects operate. Adequate compliance with regulations is crucial for risk mitigation. A study by Oyedele et al. (2017) emphasized the need for stakeholder collaboration to address regulatory uncertainties and foster a conducive environment for effective risk management.

- *Beneficiaries:*

Local communities and residents often view construction risks from an environmental and social perspective. They are concerned about disruptions, pollution, noise, and potential negative impacts on their quality of life. Their interest is in preserving the well-being of their communities and maintaining a healthy living environment. (6) Financial Institutions and Investors: Financial institutions and investors focus on credit and financial risks. They assess the creditworthiness of project owners, the project's financial viability, and the potential for repayment. Their primary concern is to protect their investments and manage credit risk. (Chapman, 2001). Local communities surrounding construction projects are increasingly recognized as stakeholders with distinct concerns. Environmental and social risks associated with construction activities can impact the well-being of communities. Engaging with local stakeholders through transparent communication channels is essential to identify and address their concerns (Odeyinka et al., 2014).

III. THEORETICAL FRAMEWORK

➤ *Classical Risk Management Theories:*

Alsman (2012) noted that classical risk management theories are a group of theories consisting of Modern Portfolio Theory (MPT), Expected Utility Theory (EUT), Prospect Theory, and Capital Asset Pricing Model (CAPM). He further elaborates that MPT, proposed by Harry Markowitz in 1952, suggests that investors can maximize returns while minimizing risk through portfolio diversification, implying risk sharing. Furthermore, the theory introduces concepts such as the efficient frontier and risk-return tradeoff (Baloi, 2021). Expected Utility Theory (EUT), developed by John von Neumann and Oskar Morgenstern, assumes that decision-makers choose actions to maximize expected utility, implying risk retaining. Therefore, EUT is widely used in finance and insurance to evaluate risk preferences. However, Prospect Theory, developed by Daniel Kahneman and Amos Tversky, challenges EUT by showing that people perceive gains and losses differently, and therefore explains why individuals sometimes make irrational risk decisions. Lastly, Capital Asset Pricing Model (CAPM), developed by William Sharpe in 1964, describes the relationship between expected return and systematic risk, and provides a framework for assessing investment risk and pricing assets (Yusuwan, Adnan, Omar, & Jusoff, 2008).

➤ *Enterprise Risk Management (ERM) Theories:*

Within this class of risk management theories are three frameworks as identified by Burtonshaw-gunn (2011). These are COSO ERM Framework, ISO 31000 Risk Management Framework. COSO ERM was developed by the Committee of Sponsoring Organizations of the Treadway Commission (Folorunso & Oyedele, 2015). The framework Integrates risk management into business strategy and decision-making (Hiley & Paliokostas, 2001); consisting of eight components, including risk assessment, control activities, and monitoring (Belel & Mahmood , 2021). Similarly, ISO 31000 Risk Management Framework has been described as a global standard for risk management (Ehsan et al., 2010). It focuses on principles, frameworks, and processes for managing risks across industries.

IV. CONCEPTUAL FRAMEWORK

The perceptions of the stakeholders in a project can be conceptualized from the underpinning theories using a project organizational structure of the stakeholders in a project (see fig. 1). Essentially, the conceptualization assumes a structure of a project organization since the relationships and interactions of stakeholders in construction infrastructure project takes place within a project setting. Therefore, it should be note in the fig. 1 that the dotted-line link represents how stakeholders are related in a project—project organizational structure. The relationship at the top level shows the client and financial lender as debtor and creditor. More often than not, such relationship is without intervening stakeholder (Chitkara, 2012).

The client has a relationship directly with the consultant, who monitors, controls, and coordinates the work on the client's behalf. As such, the consultant intervenes and communicates with the contractor being client's professional representative. Similarly, between the consultant and the contractor there are intervening government as the regulators, and/or the community as individual or group that can be affected by the project, and hence become a stakeholder. Both contractor and the consultant communicate with the government as the regulator. Finally, the subcontractor and supplier—which both can be nominated or domestic pending on the contract terms—communicate, without intervening stakeholder, with main contractor rather than the consultant and the client directly. Therefore, the risk management theories adopted for this research imply that certain risk management practices tend to create perceptual conflicts/contradictions between and within construction project stakeholders. For instance, within internal stakeholders, client – contractor perceptual conflict can arise as the result of either stakeholder's decision to retain risks in a project. Such decision of an internal stakeholder, in turn, is driven by or is on the basis of theory of *maximization of expected utility* of the project resources. Similarly, between internal and external stakeholders, contractor – financial lender perceptual conflict may be due to contractor's choice to retain or transfer the project risks on the basis of either theory of *maximization of expected utility* or *minimizing risks through portfolio diversification*, respectively, where the financial lender may perceive the identified risks as beyond the contractor's expertise to retain or the stakeholder to whom the contractor is transferring the risks is unknown to the financial lender or retaining the risks is not the best option to be chosen given the circumstances.

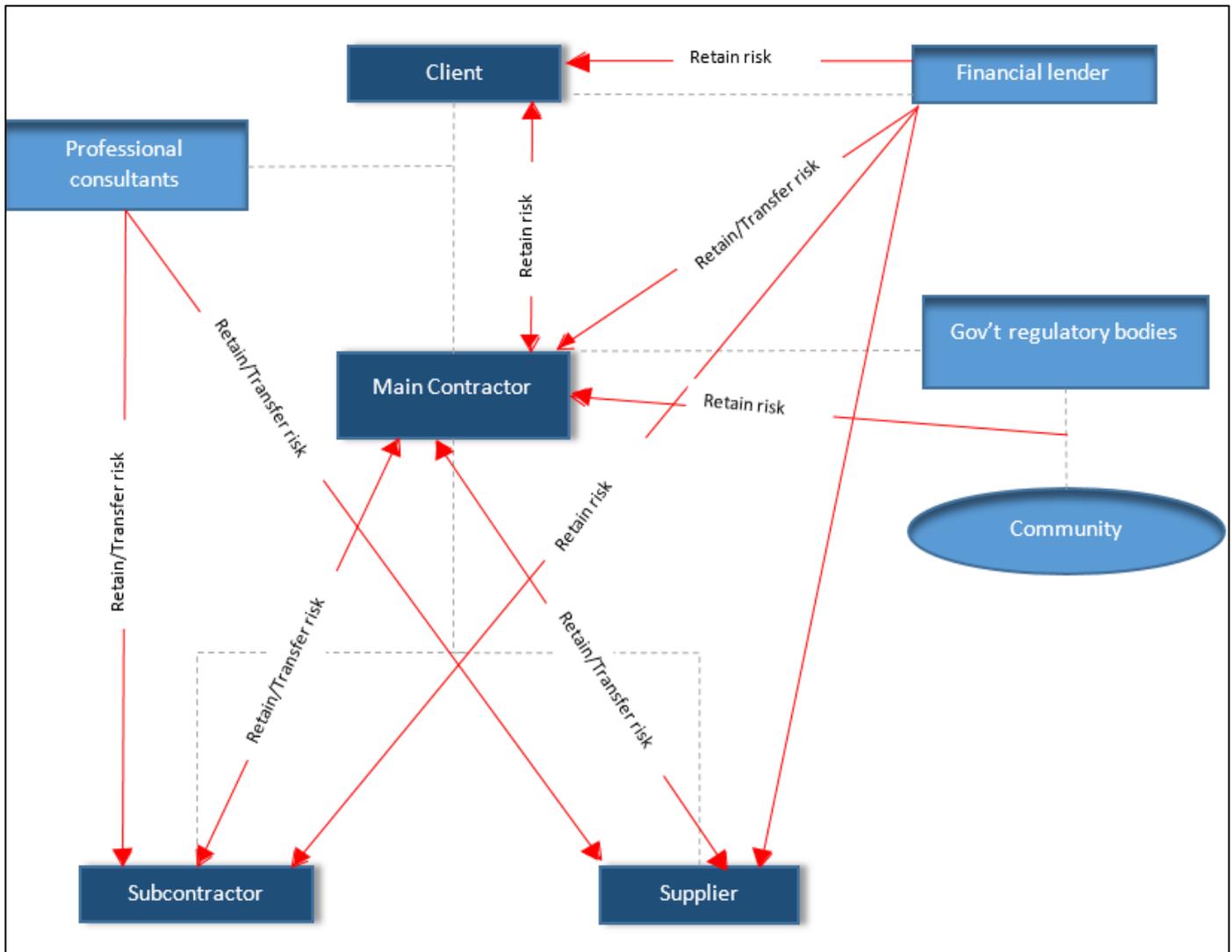


Fig 1 Conceptual Framework of Stakeholders' Perceptions on Risk Management Practices
 Note: direction of arrow is from the origin of contention

➤ *Research Method*

The study was conducted using qualitative research approach; hence data was collected using in-depth interview, one-on-one with stakeholders in the NCI—both internal and external stakeholders. The stakeholders comprise eight key stakeholders representing each of internal and external stakeholder groups, making sixteen in-depth interviews. The data was analyzed through deductive thematic analysis, using NVivo, in which pre-conceived themes coded as existing risk management practices in the extant literature (i.e., risk mitigation, risk avoidance, risk transfer, risk sharing, and risk retaining) form the basis of the interview questions.

Drawing from Hegelian dialectic approach involving thesis, antithesis, and synthesis, the interviewees (i.e., the industry stakeholders) were presented with number of risk management practices adaptable in the operations of the NCI (i.e., the thesis). The stakeholders were allowed to introspect and respond on the thesis considering various underlying peculiarities of the NCI including the Nigeria's economic trends and policies, resource availability, approach to construction infrastructure development, etc., (i.e.,

antithesis). The result of the interviews was documented and analyzed leading to developing of figure 2 which somewhat reiterates the conceptual framework in figure 1.

V. RESULTS & DISCUSSION

➤ *Concordant Risk Management Practices in NCI*

Figure 2 (comparison diagram of the perceptions) provides somewhat confirmation of the conceptual framework in the figure 1. In this case, this analysis readily indicates that risk mitigating and risk avoidance are less conflicting risk management practices in the NCI by appearing in each side of the two stakeholder groups (see fig. 2). It should be note that risk mitigation refers to doing either or both of 'reducing probability of risk occurrence' and or 'reducing the impact of a risk if it has to occur'; while risk avoidance refers to changing project plans to come up with less risky proposal. Hence, risk mitigation and risk avoidance being both appeared in the comparison diagram on the sides of both internal stakeholders as well as external stakeholders, implies that the two stakeholder groups responded on the two risk management practices thereby agreeing with the

principles of the two risk management practices as being effective in dealing with usual risks encountered in the course of running their operations.

Although risk sharing appears only on the side of external stakeholder (see fig. 2), the fact that it appears twice is due to the underlying perception of the external stakeholders about risk avoidance, as a risk management practice. Recall that—risk avoidance refers to changing project plans to come up with less risky proposal. As such, for private external stakeholders, responses clustered around the perception that “*project plans, specifications, execution strategies, etc. inevitably need to change in order to meet regulatory risks emerging from the external stakeholders*”, such as government regulatory agencies. This implies that, at least, the regulatory risks are shared with any competent entity that can manage the risk successfully, since ‘outsourcing’ is a usual procedure in private sector, generally (Zhao, et al., 2016).

Similarly, the risk avoidance appears again on the side of external stakeholders because for public external stakeholders (i.e., government client organizations), procurement method by which an infrastructure building project is to be developed must be given desirable consideration. For instance, since project initiation stage should consider developing project plans including execution

strategies that considers local laws (Holmes, 2013), the public external stakeholders seem to achieve this through a procurement method. Recall that—In Nigeria, the government is major client of the NCI (Belel & Mahmood , 2021), and that substantial portion of infrastructure for public client in Nigeria is undertaken through traditional procurement method, design-bid-build (Folorunso & Oyedele, 2015), where design is developed by in-house department and construction by a successful bidder. As such, for the public client, procurement method such as design-bid-build, which solely allows the design and construction risks to be shared by different stakeholders (Bashir, 2012), better facilitates the management of regulatory risks from the project initiation stage; hence, somewhat sharing the risk. Therefore, for public external stakeholders, design-bid-build, is the only procurement method that facilitates effectiveness of risk avoidance as a risk management practice. Consequently, partly it is agreed by the external stakeholder (i.e., the government being the major client of the NCI in Nigeria) that project plans, specifications, etc., can be amended by an internal stakeholder (i.e., contractor) pending on the procurement method. Ultimately, over these risk management practices—sharing, avoiding, mitigating—the analysis shows that there can be no or less perceptual conflict regarding their effectiveness as risk management practices suitable for the NCI.

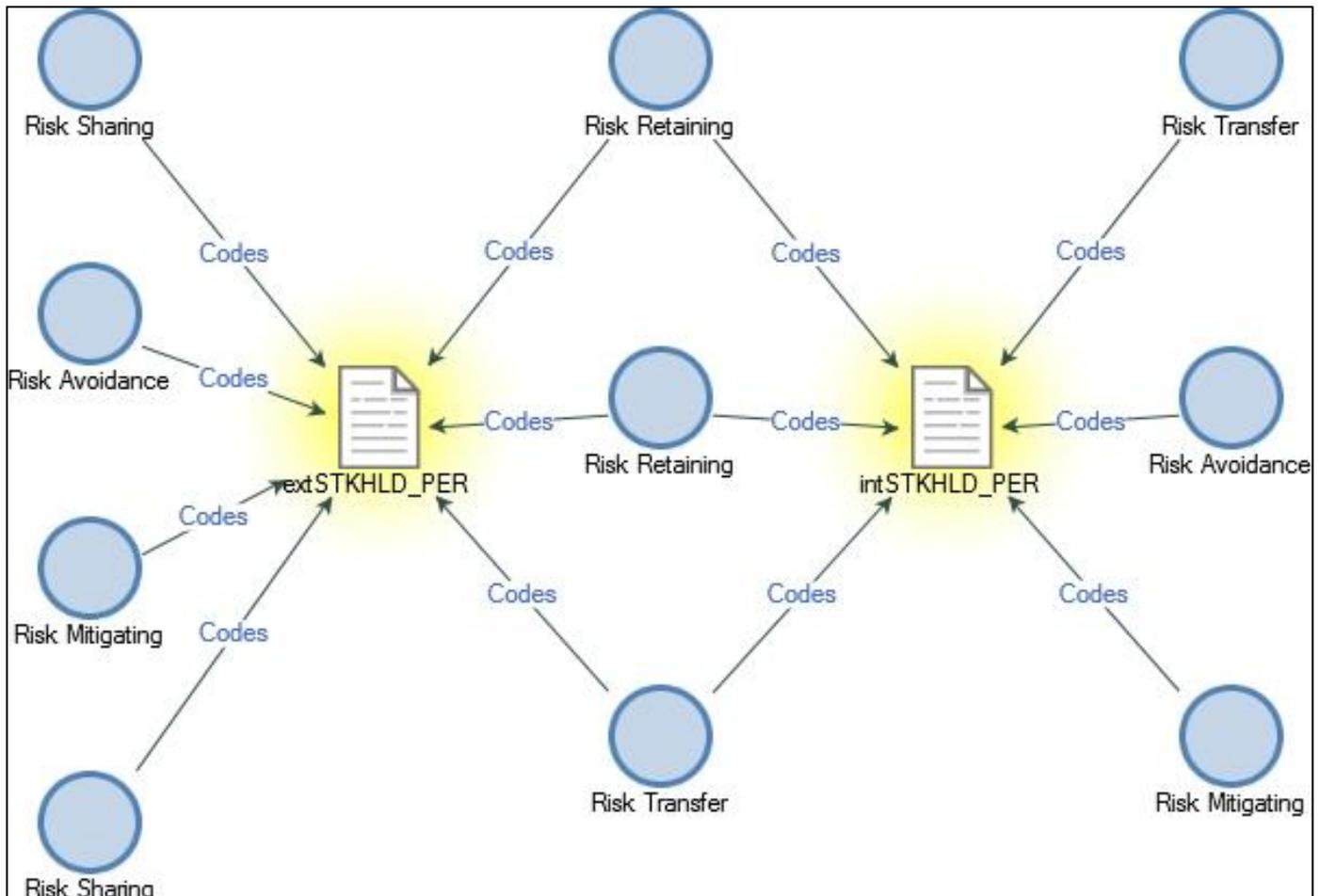


Fig 2 Concordant and Discordant Risk Management Practices in NCI

In essence, choice of each by either external stakeholder or internal stakeholder may not bring about perceptual conflict or have less tendency to bring about perceptual conflict between the two groups of the stakeholders to an extent that any eventual conflict of interest can affect the prospective project. Similarly, the choosing of each within internal stakeholders (e.g., client, contractor, subcontractor, etc.) may not bring about internal perceptual conflict among the stakeholders, which eventually can affect the project. Therefore, both within and between a stakeholder group, these risk management practices—risk avoidance, risk mitigating, and risk sharing—have no or less tendency to result to perception of threat by one or the other stakeholder in the Nigerian construction industry, hence the term “Concordant Risk Management Practices”.

➤ *Discordant Risk Management Practices in NCI*

On the other hand, the figure 2 also shows two risk management practices upon which the NCI's two groups of stakeholders—internal and external—differ in perceptions of their effectiveness as risk management practices. These are risk transfer and risk retaining. Risk transfer refers to transferring potential risk(s) to a stakeholder that can best handle the type of the risk; whereas risk retaining means retaining an identified risk(s) and execute them solely by a stakeholder in a project. These two risk management practices, as can be observed from figure 1 (i.e., conceptual framework of the study), are the two risk management practices that are conceptualized, on the basis of risk management theories, to bring about perceptual conflicts between internal and external stakeholders as well as within internal stakeholders in a project. Hence the term “Discordant Risk Management Practices”. For instance: -

- *Client – Contractor:*

When contractor proposes to Retain a risk, the finding shows that this creates perceptual conflict between the client and the contractor. This is because while contractor's decision to retain the risk can be purely on the basis of *maximization of the expected utility* of the project resources, the client, contrary to the contractor's, may perceive the need to minimize the risk on the basis of *minimizing risk through portfolio diversification*. And therefore, may opt for risk sharing to other party deemed confident to handle the risk. This conflict of interest becomes more troublesome because it is reciprocal in that the contractor may choose to share/transfer the risk still on the same basis of minimizing risk through portfolio diversification; however, the client can resist the decision on the basis of maximization of the expected utility of the project at completion. This is more likely especially when an entity or stakeholder unknown to the client is selected by the contractor.

- *Contractor – Subcontractor:*

Either of retaining risk or risk transfer might be capable of triggering perceptual conflict between these two stakeholders in a project—Main contractor and Subcontractor. It depends on the basis of the stakeholder's decision, however. The decisions to retain a risk may be on the basis of *maximization of the expected utility*, whereas the decision to transfer risk may be on the basis of minimizing

risk through portfolio diversification. For this reason, there is tendency for perceptual conflict among the two stakeholders when one risk management practice (e.g., risk retain) is chosen by one stakeholder and the other risk management practice (e.g., risk transfer) is chosen by the other stakeholder. It should be note that such tendency is even more likely when nominated subcontractor is used by the client. In this case, there might be another possibility of perceptual conflicts particularly when subcontractor's designed portion, presents number of risk factors, according to the main contractor, which changing the proposed plan to avoid the risks by the main contractor become unsettling to the subcontractor.

- *Contractor – Supplier:*

Either of retaining risk or risk transfer might be capable of triggering perceptual conflict between contractor and supplier in a project. However, it depends on the basis of the stakeholder's decision. The decision to transfer risk may be on the basis of *minimizing risk through portfolio diversification*, while the decisions to retain a risk may be on the basis of *maximization of the expected utility*. Consequently, there is the potential for perceptual conflict between the two stakeholders when one risk management practice (e.g., risk retain) is chosen by one stakeholder and the other risk management practice (e.g., risk transfer) is chosen by the other stakeholder.

- *Contractor – Financial Lender:*

Similarly, contractor's choice to retain or transfer a risk either on the basis of *maximization of the expected utility* or *minimizing risk through portfolio diversification* respectively is proven to be capable of bringing about a perceptual conflict between the two stakeholders, i.e., the contractor and the financial lender. For the financial lender, there may be perception that the project's risks should be transferred to a party with specialty to handle the risks, while for the contractor the risks can be contained in-house using their available resources.

- *Contractor – Government/Community:*

The government, as the policy maker and law enforcing entity, has the power to intervene in any internal affairs of a country. For this reason, any infrastructure development project in a country has the government as stakeholder. As such, when a contractor opts to retain a risk in a project, there can be fear on the part of the government through its related office/agency whether the contractor has the capability to deal with the risk effectively and efficiently. It is interesting to note that contractor's motive to retain the risk may be on the basis of *maximization of the expected utility* of the project resources, as a profit-oriented entity. Therefore, perceptual conflicts may arise when the government/community believe that the risk should not be retained by the contractor. Similarly, when nominated subcontractor is used in a project initiated by the government as public utility provider, there may be perceptual conflicts particularly when subcontractor's designed portion presents number of risk factors, according to the financial lender, which changing the proposed plan to avoid the risks by the main contractor become unsettling to the subcontractor.

- *Subcontractor/Supplier – Financial Lender:*

In theory, there is implication that both subcontractor and supplier are likely to retain a risk for *maximization of the expected utility* of the project resources (Srivastava & Misra, 2011). This likelihood may create perceptual conflict with the project financial lender who in theory would be guided by either *minimizing risk through portfolio diversification* as in MPT or *assessing investment risk and pricing asset* on the basis of CAPM. Therefore, the subcontractor's or supplier's decision to retain a risk in a project is likely to be unsettling with the financial lender, and therefore cause a perceptual conflict with the project financial lender. The lender's concern may be about the ability of the contractor to deal with the risk effectively.

- *Client – Financial Lender:*

The same perceptual conflict between subcontractor/supplier and financial lender also has the potential to occur between the client and financial lender in a project, albeit it is one way direction. Client's choice to accept it to the contractor to retain a risk may not be accepted by the financial lender who critically analyzed the risk and believe it should be shared or transferred to a party that best can handle it. In theory, there is implication that main contractor/subcontractor/supplier is likely to retain a risk for *maximization of the expected utility* of the project resources (Srivastava & Misra, 2011). This likelihood may create perceptual conflict with the project financial lender who in theory would be guided by either *minimizing risk through portfolio diversification*.

Ultimately, risk retaining and risk transfer are found to have tendency to bring about perceptual conflict both between internal and external stakeholders, as well as among either group of the stakeholders in the Nigerian construction industry.

VI. CONCLUSION & RECOMMENDATION

The study suggests that risk management theories—especially the Expected Utility Theory (EUT), Modern Portfolio Theory (MPT)—are useful theoretical choices to study stakeholder actions and decisions. In fact, they have been effective in predicting a construction project stakeholder risk management choice and subsequent conflicting interest from another stakeholder. And what is more, is that fact that among five risk management practices—risk avoidance, risk transfer, risk mitigation, risk share, and risk retain—the risk transfer and risk retain are the uneasy choices within internal/external stakeholders as well as between internal and external stakeholders. and therefore, they must be adequately and persuasively explained whenever a stakeholder decides to opt for any of the two. This is because, the study indicates that there is sense of cause-effect relationship between stakeholder organizational and human resource structures and risk transfer and risk retain in that the structures are the reasons for the feeling of uneasy or perceptual conflicts amongst NCI stakeholders when transferring or retaining a risk by a stakeholder. In other words, the structure of internal stakeholder organizations as well its human resource structure which differ from the structure of external

stakeholder organization and human resource structure affects each stakeholder's action and decision in risk management effort. And this is why risk retaining and risk transfer, as risk management practices, become conflicting choices amongst the two stakeholder groups.

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