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Project Risk Management and Sustainable Competitive Advantage of Construction Firms in Rivers State

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Abstract: *The study investigates the association between project risk management and the sustainable competitive advantage of construction firms in Rivers State. A cross sectional survey design was used for the study. A population of 169 managers and supervisors of 10 construction firms was used. The study was a census study. A structured questionnaire was distributed to the sample elements. The independent variable (project risk management) was operationalized with risk identification and risk response monitoring and control. The dependent variable (sustainable competitive advantage) was measured with project efficiency and cost leadership. The Spearman rank order correlation coefficient was used for the analysis. The findings reveal a highly positive significant relationship between risk identification and risk response monitoring and control and sustainable competitive advantage. The study concludes that a significant relationship exists between project risk management and sustainable competitive advantage. The study recommended risk identification and risk response monitoring and control for a sustainable competitive advantage.*

Keywords: *Project Risk Management, Risk Identification, Risk Response monitoring Sustainable Competitive Advantage, Project Efficiency, Cost Leadership.*

INTRODUCTION

Competitive advantage is the quality of an organization's performance in relation to rivals. When a business can sustain its unique (one-of-a-kind) advantage in the face of relentless imitation attempts from rivals, it is considered to have achieved a competitive edge (Harney, 2016). Beyond financial success, the idea of competitive advantage evolved in the 1980s as a way to better examine the value proposition and sustainability of organisational operations. The term "competitive advantage" is mostly credited to Michael Porter's work, which brought attention to the qualities that allow businesses, and later nations, to outperform their rivals**.** When an establishment meets the three requirements of providing a tested value-based proposition that profits end users, delivering this value proposition through organisational activities in a way that makes it difficult for competitors to copy, and maintaining the advantage despite constant environmental change and competitor actions, it is said to have a competitive advantage (Cunningham and Harney, 2012). Leading large construction enterprises have a long-term strategy that directs their development, expansion, and growth, according to studies conducted in several nations.

The need to implement sustainable competitive advantage in the building industry is growing increasingly urgent, according to Martek et al. (2019), who claim that the

existence of a broken sustainability ecosystem is the biggest barrier to the adoption of sustainability in the construction sector. However, this poses a serious issue because sustainability is a broad notion that covers a variety of aspects of optimising economic, social, and environmental goals

The adoption of techniques and materials that promote sustainability throughout all project stages as well as the product lifecycle is necessary for construction projects to be sustainable (Francis & Thomas, 2020). Through the lens of risk management, sustainability has been examined along with other project performance characteristics including time, cost, and quality, offering a prioritisation rating of associated risks (Wu et al., 2019). Different stakeholders (organisations) interpret the criticality of risks differently depending on their risk appetite, which is reflected in the partitioning scheme (Ruan et al., 2015). One of the primary shortcomings of conventional risk matrices is the use of single-point estimates (average values) to represent the exposure to individual risks (Duijm, 2015). The influence of tail risks is lessened when average data are used for risk prioritisation, and such prioritisation strategies may result in less-than-ideal decisions about the choice of suitable risk mitigation approaches (Tong et al., 2018).

Due to the higher uncertainty surrounding sustainability-related risks, it is necessary to establish reliable risk measures for successfully assessing and managing those risks in building projects (Goel et al., 2019). Researchers also need to concentrate on modifying the physical environment to meet sustainability standards and altering societal needs (Murtagh et al., 2020). Only once the difficulties and dangers of implementing sustainable competitive practices in construction projects have been established would this be possible (Wuni & Shen, 2020). This study was motivated by the lack of empirical research on project risk management and sustainable competitive advantage of construction enterprises in Rivers State, despite the existence of several studies on sustainable competitive advantage. The observed gap will be filled by this investigation.

Statement of problems

A prevalent feature of the construction sector is the composition of many small enterprises that lack strategy, but the high demand during the economic boom provided them with several jobs, regardless of experience, and taking risks in handling projects made them profitable in the short term, but in the long term, the lack of a specific image makes them less recognisable and attractive to their potential customers, thereby, losing market positions as a result of the dynamic, volatile, and uncertain economic environment and a lack of strategy.

To maximise the economic, social, and environmental benefits of construction, there is a growing awareness of the need for and interest in the shift of construction firms towards sustainability. This poses a big challenge to both industry practitioners and politicians because sustainability is such a broad concept with many facets, and construction companies typically have limited resources. Studies that categorise different sustainability factors according to managerial significances will help construction businesses identify effective transitional routes to higher sustainability levels. Zhao, Zillante, Soebarto, Chang, Zuo, & Gan, 2017). Oganisations should be ready to adapt to new circumstances, in which the known classic forms of corporate behaviour play a smaller and smaller role and have a smaller and smaller chance of succeeding. Every firm must

consider this challenging question because of the dynamics in the external and internal environment and knows what steps should be taken to adjust to the new circumstances in the future? A significant issue and objective for a construction company should be a well-defined long-term strategy and positioning that will enable it to earn higher profits - average or higher than the industry average, and this can only be a result of developing competitive advantage.

According to Olawumi et al. (2018), the greatest obstacle to implementing sustainable practises in building is people's reluctance to switch from using traditional methods to applying cutting-edge technologies. Cruz et al. (2019) offered a conceptual framework for incorporating sustainability considerations to address the difficulties the construction sector faces.

AIM AND OBJECTIVES OF THE STUDY

The study examines project risk management and sustainable competitive advantage of construction firms in Rivers State. Specifically, it examines the association between:

1. Risk identification and project efficiency of construction firms in Rivers State
2. Risk identification and cost leadership of construction firms in Rivers State
3. Risk monitoring and control and project efficiency of construction firms in Rivers State
4. Risk monitoring and control and cost leadership of construction firms in Rivers State

RESEARCH QUESTIONS

1. What is the relationship between risk identification and project efficiency of construction firms in Rivers State?
2. What is the connection between risk identification and cost leadership of construction firms in Rivers State?
3. What is the association between risk monitoring and control and project efficiency of construction firms in Rivers State?
4. What is the bond between risk monitoring and control and cost leadership of construction firms in Rivers State?

RESEARCH HYPOTHESES

Ho_1: There is no significant relationship between risk identification and project efficiency of construction firms in Rivers State

Ho_2: There is no significant relationship risk identification and cost leadership of construction firms in Rivers State

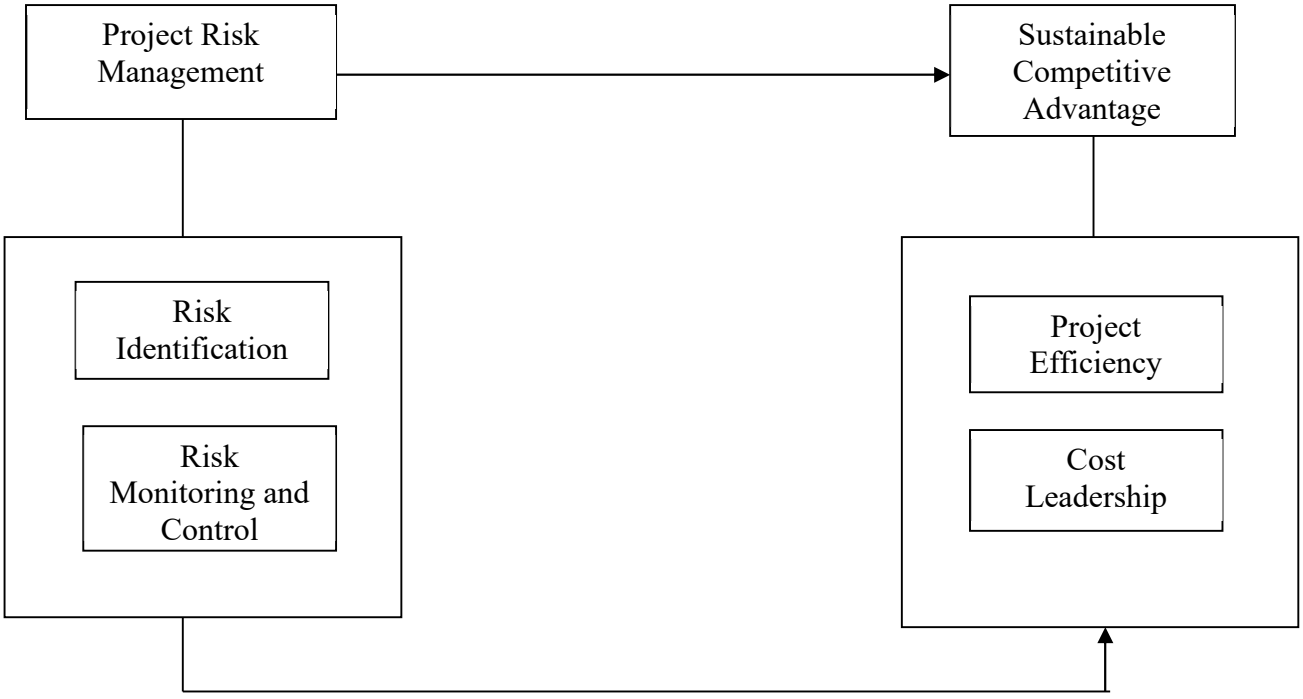
Ho_3: There is no significant relationship risk monitoring and control and project efficiency of construction firms in Rivers State

Ho_4: There is no significant relationship risk monitoring and control and cost leadership of construction firms in Rivers State

RESOURCE-BASED THEORY

The study is anchored on resourced-based theory. According to a resource-based perspective, both internal firm decision-making and external strategic considerations influence the choice and accumulation of resources (Oliver, 1997). Selections are made for firm management with an emphasis on economic prudence, efficiency, effectiveness, and profitability. The intensity of competition, buyer and supplier power, and the structure of the industry and product market are examples of external influences. Market imperfections, which are described as obstacles to the acquisition, imitation, and substitution of essential resources or inputs, will determine if the resource selection and deployment cause permanent variation between businesses (Oliver, 1997). These barriers allow businesses to prevent competitors from copying or duplicating important resources, giving the company a long-term competitive edge.

Conceptual Framework



Source: Adopted from Venugopal Karuthedath Vijayan and Neelam Sharma, A Study on the Impact of Dimensions of Risk Management on Risk Management Practices in it Projects in the UAE.

PROJECT RISK MANAGEMENT

Risk is defined as the impact of uncertainty on objectives. Risk is required for growth because failure is a learning experience. Wikipedia (Wikipedia, 2023) A risk is a potential future harm that could occur as a result of current activity, such as a schedule slip or a cost overrun. However, we must learn to balance the potential negative consequences of risk with the potential rewards of the opportunity it provides. (Van Scoy, 1992). A project is an individual or group activity that has a specific purpose in mind and an unpredictable event or situation that, if it occurs, has a positive or negative impact on the goals of a project. (PMBOK manual, 2013). Project risk management aims to promote beneficial events while limiting bad ones (Boroomand, & Smaldino, 2021). Organisations and project owners regard project risk management activities as a nice-to-have rather than a necessary component of project controls (KPMG, 2014). The continuous process of detecting, evaluating, prioritising, and reducing risks that jeopardise a project's success in terms of cost, schedule, quality, safety, and technical performance is known as project risk management.

Risk management, according to Ssempebwa (2013), is a continuous process that lasts the duration of a project and includes procedures for planning, detecting, evaluating, monitoring, and controlling risks. Many of these methods are modified as new hazards emerge during the course of a project. Risk management is to reduce the possibility and impact of things going erroneous for the project and it is critical to take advantage of any situation that may be advantageous. The purpose of project risk management, according to KPMG (2015), is to understand risks at the project and programme levels, minimise the chance of unfavourable outcomes, and improve the probability of favourable outcomes for project and programme outcomes. According to them, project risk management is a continuous process that begins with planning and ends when the project is successfully completed and passed to operations. Risk management activities in the construction industry are routinely defined and applied differently by project teams, contractors, and stakeholders.

According to Qazi and Dikme (2019). The risk matrix, a two-dimensional mapping of likelihood and impact ratings associated with distinct risks, is widely utilised in the construction sector. This risk matrix is typically created using a Likert scale and divided into distinct risk exposure regions, such as high, medium, and low (Aven, 2017). These ratings' end result indicates the total exposure to individual risks and can be used impact evaluations. An organisation may accomplish its objectives and generate value for its stakeholders and itself with the help of risk management. As a result, risk management in project management must be connected to the accomplishment of the organization's goals, not simply the project manager's, throughout the delivery phase in order to stay within its cost budget, fulfil schedule milestones, and generate results at a specific degree of quality. During the planning or execution of a project, opportunities to increase value and maximise return on capital are often discovered. However, whatever the "in-project" objectives, those of the organisation are of utmost importance, and the creation of organisational value should be the purpose for which the risk management process is applied.

Risk Identification

The process of identifying all potential hazards that can affect the project negatively or favourably is known as risk identification. During the risk identification phase, it is crucial to seek input from all project stakeholders, even those who are not a part of the core project team (KPMG's Project Advisory Leadership Series, 2014). Risk identification identifies what might happen that could affect the project's objectives and how those things might through a project risk register, a deliverable that records the risks and their characteristics and is strengthened through qualitative or quantitative risk analysis, risk response, and risk monitoring processes (Caltrans, 2012; FHWA, 2016). Risk identification is an iterative process since new risks may emerge as the project continues through its life cycle, previously recognised risks may be dropped, and other risks may be modified. Avoiding misinterpretation between risk causes, actual hazards, and risk impacts is a challenge in risk identification (Caltrans, 2012; FHWA, 2016). The causes are certain events or situations in the project's or its setting that cause uncertainty. Causes are not the main focus of the risk management process because they are facts or requirements, neither of which are intrinsically unpredictable. Actual risks are uncertainties that, if they materialise, will affect the project's goals negatively (as threats) or favourably (as opportunities). Unexpected deviations from the project's goals brought on by risks are known as risk impacts. Effects are unforeseen potential future changes that won't happen unless the risks are present. Effects are dependent events, unanticipated probable forthcoming changes that won't happen until the risks materialise. Effects cannot be directly addressed through the risk management process since they do not yet exist and may never do so. Genuine hazards may not receive the proper level of attention if causes or effects are included in a list of recognised concerns because they are obscured by the inclusion of causes or effects.

Risk Response Monitoring and Control

The final stages of risk management include monitoring and control. To keep track of potential risks, oversee the implementation of risk management strategies, and evaluate their efficacy, a process should be put in place. Throughout the course of the project, monitoring and control should be implemented in order to enhance and direct the whole risk management procedure. Project risk response monitoring and control should give management and the project team the information they need to make informed decisions about risks, assess the effectiveness of risk mitigation strategies, and spot changes in risk characteristics from earlier rounds of risk identification and analysis.Project monitoring and control are critical for sustaining effective and efficient risk management; they serve as a gauge for how well your risk management plan is developed. If monitoring and control reveal that particular risks are not being mitigated or avoided as expected, the response plan might be adjusted. When monitoring and control show that an identified risk is unlikely to occur, the plan can be altered to re-prioritize the risk to a lower level (KPMG Project Advisory Leadership Series, 2014)

Monitoring and controlling a project allow you to assess project performance, examine the project plan, review project status, identify potential difficulties, and execute

modifications as needed and this phase corresponds to the project lifecycle's execution phase that can be used to keep a project on track and within budget while also controlling risk and avoiding scope creep (Ebi, 2022). Preventing problems from occurring is the main objective of monitoring and control in project management. These changes can require reassessing and revising the project plan. To finish a project on schedule, on budget, and within scope, monitoring and control are essential. Monitoring and control procedures find deviations from the project schedule. The project is monitored and controlled to make sure it is completed successfully, effectively, and on time.

SUSTAINABLE COMPETITIVE ADVANTAGE

In 1984, Day proposed various types of tactics that could aid in "sustaining the competitive advantage (SCA)," which is when the concept of a SCA first emerged. When Porter defined the fundamental forms of competitive strategies a corporation can employ (low-cost or differentiation) in order to attain a long-run SCA (Porter's, 1985). Day and Wensley (1988) acknowledge that there is "no common meaning for 'CA' in practice or in the marketing strategy literature". A group of resources, traits, or skills that enable an organisation to outperform its rivals in satisfying the needs of its customers are known as sustainable competitive advantages. Competitive advantages that last over time are challenging to imitate or recreate. What makes one better than anyone else constitutes a competitive edge. The phrase "sustainably" refers to your capacity to carry out certain actions over an extended period of time and which certainly have advantages that you might not possess sometimes (On strategy, 2023). The combination of internal and external economic, technological, social, and other elements determines how competitively produced economic entities are in the market. To carry out a comprehensive and multifaceted economic assessment of competitiveness and make recommendations for how to improve it, it is, however, not sufficient to simply identify the key determinants of competitiveness. Appropriate data, metrics, and evaluation methods must also be chosen.

Project Efficiency

The ability to do a task with little to no waste, effort, or energy is referred to as efficiency (Banton, 2022). Efficiency is using resources with no wastage and ensuring an optimized procedure that covers the utilisation of resources such as cash, labour, machinery, and energy. Efficiency refers to the maximum grade of performance that uses the fewest inputs to produce the greatest amount of output, it reduces the number of resources, including human time and energy that are used to produce a certain result that is not necessary and it is a quantifiable concept that may be calculated by subtracting total input from usable output and it increased productivity is achieved while using fewer resources, including time, energy, and physical resource output (Banton,. (2022).

Cost Leadership

Cost leadership is obtaining a competitive advantage by having the industry's lowest cost of operating (Michael & David, 1997). Company efficiency, size, scale, scope, and

accumulated experience (learning curve) are frequently driving factors in cost leadership. A cost leadership strategy seeks to capitalize on scale of production, well-defined scope, and other economies (for example, a good purchasing method), while manufacturing highly standardized products with modern technology (Gavin, 1993). A company with a cost leadership strategy sells products or services of acceptable quality and features to a wide range of customers at a cheap price. Establishing a low-cost position among rivals is a strategy employed by firms to achieve a competitive edge. Cost leadership strategy refers to a company's ability to maintain lower prices than rivals by improving production and efficiency, eliminating waste, or controlling costs.

Empirical Review

Chang, Zuo, Soebarto, Zhao, Zillante, and Gan (2016) investigate the sustainability practises and strategic sustainability behaviours of three well-known Chinese construction enterprises. The organisations under investigation have adopted 29 sustainable practises. The three firms' strategic sustainability behaviours have evolved over time, and both the benefits and drawbacks of their sustainability practises are critically analysed. The results demonstrate that the examined firms display a variety of strategic sustainability behaviours, and that environmental sustainability practises relates to economic and social sustainability. Also taken into consideration are potential strategies for easing the sustainability transition in the Chinese construction sector.

Martek, Hosseini, Shrestha, Edwards, and Durdyev (2019) aims to go beyond the discussion over the instruments and pinpoint a wider variety of barriers to the Australian building industry's transition to sustainability. It is based on talks made in focus groups with 26 eminent sustainability practitioners and experts from across the nation. In contrast to past research on sustainability barriers, which pre-identified probable causal elements, this study's theoretical lens of sustainability transition allows for the emergence of new and unrecognised sustainability hurdles. The fundamental impediment to sustainability transition is revealed to be the presence of a dysfunctional sustainability ecosystem where siloed entrenched interest groups take advantage of Australia's inefficient transition regimes for their own gain, despite evidence confirming a variety of technical deficiencies.

Qazi, and Dikmen (2019) offer a new method whereby the risks mapped on a risk matrix corresponding to each project aim are combined, modelled as a network of risks, and the network-wide effects of each risk are quantified using new risk metrics. An actual application serves as a demonstration of the suggested methodology. Results for the two ranking schemes, which assume independence or interdependence of risks, are found to be negatively associated, which supports the need for an interdependency-based risk management strategy.

In order to assess how risk management was carried out in each project, Osipova and Eriksson (2011) conducted an exploratory study and a series of interviews with clients, contractors, and consultants involved in 11 Swedish construction projects. Regardless of the procurement method, many projects suffered from cost variances affecting one or more participants. Risk management was not done in a systematic manner throughout the project phases. A more thorough risk management procedure was discovered in projects with early involvement of the players, their participation throughout the project, and possibilities for open conversation and collaboration. While project delivery

techniques outline formal risk distribution, the application of incentives and collaboration or partnering agreements aid in the development of a collaborative risk management approach.
Dey (2012) provides an integrated analytical paradigm for effective project risk management that combines multiple-criteria decision-making and decision tree analysis. First, a conceptual risk management model was built through a survey of the literature. The approach was subsequently tested through action research on a petroleum oil refinery construction project in Central India to establish its efficacy. Oil refinery building projects are risky due to technical complexity, a lack of resources, the engagement of several stakeholders, and rigorous environmental regulations. Despite substantial study into project risk management, a practical and simply implementable framework is lacking. The suggested framework identifies hazards using a cause and effect diagram, analyses them using an analytic hierarchy approach, and develops answers using a risk map. Furthermore, decision tree analysis allows for the modelling of multiple risk response alternatives and the optimisation of risk-reducing strategy selection. The proposed risk management framework is simple to implement and connect with other project management knowledge areas.

METHODOLOGY

A cross sectional survey design was used to attain the objectives in the study. A population of 169 managers and supervisors of 10 construction firms were used was used. The study was a census study. A structured questionnaire was distributed to the sample elements. The independent variable (project risk management) was operationalized with risk identification and risk response monitoring and control. Each construct was measured with 6 items. The dependent variable (sustainable competitive advantage) was measured with project efficiency and cost leadership. The Cronbach alpha was utilized to determine the reliability of the variable. The questionnaire items were rated on a 4-point Likert scale from 1-strongly disagreed, 2-disagree, 3-agree, and 4-strongly agreed. The Spearman rank order correlation coefficient was used in analyzing the earlier state hypotheses.

RESULT

169-questionnaire were distributed, but only 161(95.3%) copies were returned. The hypotheses test is undertaken at a 95% confidence interval and the decision rule is stated below.
Where $P < 0.05$ = Reject the null hypotheses
Where $P > 0.05$ = Accept the null hypotheses

Table 1: Correlations between risk identification and dimensions of sustainable competitive advantage

			Risk Identification	Project Efficiency	Cost Leadership
Spearman's rho	Risk Identification	Correlation Coefficient	1.000	.695**	.625**
		Sig. (2-tailed)	.	.000	.000
		N	161	161	161
	Project Efficiency	Correlation Coefficient	.695**	1.000	.536**
		Sig. (2-tailed)	.000	.	.000
		N	161	161	161
	Cost Leadership	Correlation Coefficient	.625**	.536**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	161	161	161

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2023.

Risk Identification and Project efficiency: Column five of Table 1 above shows a rho value of 0.695** at a significance level of 0.000 which is less than the chosen alpha level of 0.05 for the hypothesis relating risk identification and project efficiency. Since the significance value is less than the alpha level of 0.05, the null hypothesis (Ho_1) which states that there is no significant relationship between risk identification and project efficiency is rejected and the alternate hypothesis is accepted. This implies that there is a strong significant positive relationship between risk identification and project efficiency.

Risk Identification and Cost Leadership: Column six of Table 1 above reveals a rho value of 0.625** at a significance level of 0.000, which is less than the alpha level of 0.05 chosen for the risk identification and cost leadership hypothesis. The null hypothesis (Ho_2), which claims that there is no significant association between risk identification and cost leadership, is rejected because the significance value is less than the alpha level of 0.05, and the alternate hypothesis is accepted. This implies that risk identification and cost leadership have a highly significant positive relationship.

Table 2: Correlations between risk response monitoring and control and the dimension of sustainable competitive advantage

			Risk Response Monitoring and Control	Project Efficiency	Cost Leadership
Spearman's rho	Risk Response Monitoring and Control	Correlation Coefficient	1.000	.725**	.685**
		Sig. (2-tailed)	.	.000	.000
		N	161	161	161
	Project efficiency	Correlation Coefficient	.725**	1.000	.694**
		Sig. (2-tailed)	.000	.	.000
		N	161	161	161
	Cost Leadership	Correlation Coefficient	.685**	.694**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	161	161	161

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2023.

Risk Response Monitoring and Control and Project Efficiency: Column 5 of Table 2 reveals a rho value of 0.725** at a significance level of 0.000, which is less than the alpha level of 0.05 chosen for the hypothesis level relating risk response monitoring and control to project efficiency. The null hypothesis (Ho_3), which claims that there is no significant relationship between risk response monitoring and control and project efficiency, is rejected since the significance value is less than the alpha level of 0.05, and the alternate hypothesis is accepted. This means that risk response monitoring and controls have a highly significant positive association with project efficiency.

Risk Response Monitoring and Control and Cost Leadership: Column six of Table 2 above shows a rho value of 0.685** at a significance level of 0.000 which is less than the chosen alpha level of 0.05 for the hypothesis relating to risk response monitoring and control and cost leadership Since the significance value is less than the alpha level of 0.05, the null hypothesis (Ho_4) which states that there is no significant relationship between risk response monitoring and control and Cost Leadership is rejected and the alternate hypothesis is accepted. This implies that there is a strong significant positive relationship between risk response monitoring and controls and cost leadership.

DISCUSSION OF FINDINGS

The data analysis above depicts that project risk management in terms of risk identification and risk response monitoring and control has a connection with a sustainable competitive advantage. The discussions of each hypothesis are specified below.

Risk Identification and Project Efficiency

The results of the data analysis in Table 1 showed a strong relationship between risk identification and project efficiency. The P-value of 0.000 demonstrates a strong positive relationship existence between risk identification and project efficiency, and the rho value of 0.695 demonstrates a strong positive connection between the variables. The result agrees with Sharma & Gupta (2019) thought that risk of unavailability of funds, design errors and poor engineering, poor site management and supervision, contractual risks, changes in government laws and regulations, severe environmental conditions, change in the inflation rate, natural disaster, inadequate safety measures, change in the project which are commonly used tool and technique for risk identification has a relationship with the organisation efficiency.

Risk Identification and Cost Leadership

The hypothesis 2 analysis in Table 1 showed a positive strong significant correlation between Risk Identification and cost leadership. The P-value of 0.000, and the rho value of 0.625 demonstrates a strong positive link between risk identification and cost leadership. The report agrees with Osipova and Eriksson (2011) that regardless of identified risk in the procurement method, many projects suffered from cost variances affecting one or more participants. Hence risk identification significantly relates to cost leadership.

Risk Response Monitoring and Control and Project Efficiency

The results in Table 2 revealed that risk response monitoring and control relate significantly to project efficiency. The correlation among the variables signifies that risk response monitoring and controls can improve project efficiency. The P-value of 0.000 shows that risk response monitoring and control relate to project efficiency, while the rho value of 0.725 shows a strong positive correlational value among the variables. This result is consistent with that of (Ebi, 2022) that Preventing risk and problems from occurring is the main objective of monitoring and control in project management, and projects are monitored and controlled to ensure project successful completion, carried out effectively, and on time.

Risk Response Monitoring and Control and Cost Leadership

The analysis presented in Table 2 revealed that risk response monitoring and control relate significantly to cost leadership. The P-value of 0.000 shows that risk response monitoring and control relate to cost leadership, while the rho value of 0.685 shows a high positive correlational value among the variables. This finding agrees with Chang et al. (2016) whose findings show that environmental sustainability risks eliminating practices are related to economic and social sustainability in construction firms.

CONCLUSION

The study examines the project risk management and sustainable competitive advantage of construction firms in Rivers State, Nigeria. The study found a strong correlation between project risk management and the sustainable competitive advantage of construction firms in Rivers State. Construction firms do experience challenges while executing projects, but taking proactive action through early risk identification, putting effective risk response and monitoring control in place, and ensuring efficient project risk management will enhance a progressive sustainable competitive advantage. The study concludes that a relationship exists between project risk management in terms of risk identification and project response monitoring and control relates to the sustainable competitive advantage of the construction firms in Rivers State

RECOMMENDATIONS

1. The construction firms should promote profitable, fair, transparent, safe, ethical, and environmentally friendly project delivery, through proactive risk identification, monitoring, and control for successful project completion
2. Construction firms should monitor the environment to aim for a project deliverable that is socially and environmentally acceptable throughout its lifecycle.
3. Construction firms should identify significant differences in how people perceive and act in terms of social and environmental sustainability to proffer solutions to challenges.
4. Construction firms should proactively embrace cost leadership and project efficiency for sustainable competitive advantage.
5. Company efficiency in size, scale, scope, and accumulated experience should be driving factors in cost leadership and project efficiency.

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