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AN ASSESSMENT OF TEAM PROCESSES WITHIN TENDER EVALUATION COMMITTEES OF CONSTRUCTION PROJECTS IN NIGERIA

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ABSTRACT

Contractor selection is aimed at bringing into the project implementation team of competent contractor for effective project delivery and achieves the best value for money. This process enables stake holders to exercise confidence in the selection of the most appropriate contractor during the procurement process. To succeed, therefore, construction firms need to be engaged in team processes in tender evaluation committees to be able to adapt to these unknown and uncertainties. The team processes and tender evaluation committees are strongly correlated, according to many studies. However, because of the nature of construction businesses as opposed to the way the construction industry are organized, the conclusion cannot be extended to construction industry. This study is to assess the team processes engaged within tender evaluation committees towards selecting contractors in public construction project. Primary and secondary data were harnessed for the purpose of this research. Through the use of questionnaire as a primary data collection instrument, this research determines the relationship among team processes in tender evaluation committee. 107 questionnaires were sent to the construction professionals, 84 questionnaires were successfully retrieved within Zamfara and Abuja. While their content were further subjected to data analysis Relative important index (RII) was used to identify the team processes in tender evaluation committee and used to evaluate the extent of team processes in construction project. Pearson correlation was used to determine the relationship among team processes in tender evaluation committees of construction projects. The study revealed that tender evaluation committees shown the team processes with "cooperation", being most dominant. The study further revealed that Tender evaluation committees shown the team processes with "conflict with communication being most dominant. Conflict "and communication" have more qualify the relationship with coordination in tender evaluation committees. "Cooperation", is not significant with coaching" and also cognition" is not significant with coordination". The study concluded conflict and communication has significant relationship with coordination in tender evaluation committees. The findings from the study implied that there were needs for the TEC members to embraced coordination as a way of improving conflict management and effective communication vice versa.

Keywords: Assessment, Team, Tender, Committees, Construction.

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Introduction

The rapid growth of the economy calls for massive development of infrastructure and assets. Construction projects are one-off endeavors with many unique features such as long period and complicated processes contributing to environmental change. Contractors' evaluation is a vital part of the project management cycle. Contractor performance becomes more crucial owing to organizational and technological difficulty of construction Projects which create massive threats.

Selection of the most appropriate contractor is a fundamentally important part of the procurement process. Ensuring that the contractor has the correct combination of technical skills, managerial expertise and financial resources has long been recognized as critical to project success, and has conventionally formed part of the process of tender list selection (Ahmed and Abubakar, 2018).

Furthermore, stability between achieving the current construction project responsibility and future of the project goals, team processes has been determined to sustain contractor performance in project delivery (kumaraswamy and Mathew, 2016 and Ng and Wan. 2019). Selecting the right project team is likely to be single activity that can reduce most client risk. An effective team can collaborate in the client's interest to ensure the delivery of the right project at the right price and at the right time (Morledge and Smith, 2013). This team processes has been described as a critical consideration as the primary attitudes, behaviors and cognitions that occur within the team and its regard as core aspects of team work. Construction firms which have been able to select contractors through the team processes during tender evaluation can expect to achieve the project goals (Hendrickson, 2019; Olayemi and Felix, 2020).

Previous research has focused on the contractor selection on construction project in other to have a suitable contractor to deliver the project at specified durations so that the achievement of the best value for money is ensured. It has also shown that selection of a qualified contractor gives confidence to the stakeholders that the selected contractor can achieve the project goals (Hendrickson, 2019)

While aspect of contractor selection team processes has been investigated, the attention has been on team processes within tender evaluation committees how effective team processes engaged by tender evaluation committees toward selecting contractors in public project is the available gap that could offer more clarity on the extent of which team processes has an impacts on committee members (Tiong, 2016, Darvish etal, 2018).

Statement of the Research problem

According to (shehu and Karmal, 2019) the need for team processes in the selection of contractors has been under emphasized,

although is largely accepted a way of selecting a suitable contractors in a construction industry. In the most part of the world, the industry has not able to keep up with team processes and so remain behind other industry in the adoption of team processes during the tender evaluation committees. The goal for this team processes is to show case an attraction of cooperative relationships throughout the selection procedures for effective project performance. The client demand for quality work, timely completion of construction projects at affordable cost and the complexity of modern construction infrastructure among others are the major reasons necessitate for team processes in tender evaluation committees. Construction firms face a slew of hurdles and serious competition in the construction areas, according to (Salas, and Marissa, 2018) which should necessitate embracing team processes in contractor's selection. The Construction firms which have been able to select contractors through the team processes during tender evaluation can expect to achieve the project goals (Hackman, 2019; Ruffel and Tong, 2020).

Research in the past have focused on the areas of criteria and method of selection which largely on technical, financial and managerial (Samuel, Mathew and Odusami; 2018, Alenca, 2020) and also made several attempt to highlight the relationship among team processes within tender evaluation committees in the construction projects. (Tiong, 2016; Muzan and Ahmed, 2020; Albert, 2020; Kemi etal., 2019

Past research has highlighted that team processes has a strong correlation with tender evaluation committees. However, because of the nature of construction businesses as opposed to the way the construction industry are organized, the conclusion cannot be extended to construction organization. Thus, there is need to evaluate the team processes in tender evaluation committees.
This study therefore, seeks to analyze specifically, the assessment of team processes within tender evaluation committees of construction projects, in Nigeria.

Objectives of the Study

(i) To identify team processes in a typical construction project.

(ii)To evaluate the extent of team processes in tender evaluation committee of construction projects in Nigeria.

(iii) To determine the relationship among team processes in tender evaluation committees.

Literature Review

This team processes and emergent states described here in as critical consideration are the primary attitudes, behaviors and cognitions that occur within the team and its regard as core aspects of team work. These considerations have emerged as critical from decades of extensive empirical work acknowledging their significance in

effective teamwork. These include the attitudes and motivations within the team for engaging in team work (i.e., cooperation), the behavioral interactions among members (i.e., conflict, coordination, communication, coaching), and the shared knowledge that arises out of these interactions (i.e., cognition). (Salas and Marrissa, 2018).

The following are the team processes involved in tender evaluation committees of construction projects identify in the literature:

i. **Cooperation:** is an embracing team work consideration that captures the motivational drivers necessary for effective team work. In essence, cooperation contains the attitudes, beliefs and feelings of the team that motivate the team behavioral action. There are a number of team – level indicators of cooperation critical to team effectiveness. For instance (Bell and Kozlowski, 2003), discussed on collective efficacy (i.e.; sense of competence to control team's environment. Also trust (i.e.; share of belief that all team members will contribute as required by role and protect the team (Bandow, and Tuckman, 2016), and also team /collective orientation (i.e.; general preference in the significance of team work as team level attitudes important for successful team work..

ii. **Conflict:** team certainly experience conflict during their task differ strongly (Jehn, 2015). Conflict in particular is an issue for teams, as it can lead to breakdown in performance (Salas et al. 2018), and its impact on performance is more magnified by the complexity of the team's task (Dreu & Weingart, 2013). Conflict can be seen as seeming incompatibilities in the interests. Beliefs and opinions held by one or more team members (Shaw et al.; 2019). Team conflict can be either task–based (i.e. differences in view opinions regarding on how members should best execute their tasks), or relationship based on (i.e. interpersonal differences that brings up annoyance among the team members).

iii. **Coordination:** effective coordination is a paramount behind positive team outcomes. Coordination seen as the enactment of behavioral mechanism necessary to perform a task and transform team resources in to better outcomes (Salas, & Kendall, 2019). Behavioral mechanism is no doubt to be for effective team processes and outcomes. Because of their criticality and occurrence, one systematic review on integrated frame works that focused on team work behaviors specifically, with coordination frequently cited as a vital dimension (Aube and Savoie, 2016).
Coordination involves the use of team- level strategies to align knowledge and actions to achieve

common goals (Arrow and Mc Grath, 2020). Coordination can take several forms, as individuals within a team may be performing the same tasks, which may range from a function of their interdependence (Guastro and Guastello, 2018).

iv. **Communication:** is essential to all types of organization from high – tech multinational firms to daily lower operations. According (Parker, 2019), communication breakdown as one of the leading sources of avoidable errors in firms. To define team communication, there are two perspectives that can be look into: The most common view is essentially on transfer of information between sender and receiver (Deetz, 2014). However, this transmission pattern of communication does not put into consideration of internal and external factors that may be influenced information of sending, interpretation and response, especially in a team context. In its place, communication is more of transactional process, by which communication can be sent and receive information at the same time, with factors such as how and from which the message is sent influencing interpretation and response (Barnlund,2018).

v. **Coaching:** teams on their own may not necessary recognize when break down are occurring or where expertise may lie within the team (Hackman, 2019). Coaches (i.e. leaders) both internal and external to a team can provide the necessary direction and support to help team members this potential for process lost (Zaccaro, 2016; Rittman and marks, 2017. Furthermore, there may be even a need to have multiple individuals share leadership behavior from either a formal or informal standpoint of view in order to effectively facilitate tam work (Morgan and Karam, 2020). From an empirical standpoint of view, literature thrives to support the value of leadership behaviors, such as initiating structure and providing consideration in contributing to all team effectiveness (Salas & Kendall, 2019). Hence it is important to recognize how to incorporate coaching and leadership into team design, development and performance. Coaching has been used to describe many activities performed by both individuals and teams for the sake of team effectiveness (Hackman and Wageman, 2015).

vi. **Cognition:** team cognition or shared of team knowledge is possibly one of the most widely studied factors in team research, with good outcomes (Kem & Sam, 2014). Team cognition serves as a foundation to effective team processes in that it allow for team to enter into a team performance episode with a shared of understanding of how the team will engage in the task at hand. Mental model, Trans-active memory system) among team members that it is developed as a result of team members

interactions. Team cognition include knowledge of roles and responsibilities, team mission objectives and norms; the situation within which the team is operating and familiarity with team mates knowledge, skills and abilities (Ted et al., 2013).

Methodology

Field survey research method was adapted to gainer information on the subject matter through the administration of questionnaires to relevant professionals in construction industry. This research is to have a national coverage with construction professionals in Abuja and Zamfara. The researcher presumes that the locations are true representative cities for the country. A sample size of one hundred and seven (107) firms (consultancy and construction) situated in Abuja and Zamfara. A total of 107 questionnaires were administered randomly on selected firms within Abuja and Zamfara and Eighty-Four (84) questionnaires were received and used for analysis. The overall tests of significant of correlation and the statistic has two degree of freedom, which are F1 and F2 (F1 = 0.01 where F2 = 0.05 level and N is number of observations). The level of significance of test is set at 5% (95% confidence level). For significant linear relationships, the P-value must be less than 5% (P < 0.05) or otherwise.

Data Analysis

This study used both descriptive and inferential statistical analysis for the study. The predominance in these team processes was identified using relative important index mean score, which was used identify team processes in typical construction projects and also evaluate the team processes in tender evaluation committees. The statistical package for social science IBM SPSS software was used to conduct the conduct descriptive analysis. Pearson correlation was used to analyse the relationship among team processes in tender evaluation committees. Pearson was chosen because it can measure and explain the relationship among the variables i.e., cooperation, conflict, coordination, communication, coaching and cognition and was performed using SPSS software.

Analysis of Data

Table 1 **Mean Ranking of Team Processes in TEC**

TEAM PROCESSES	MEAN	STD	RANK
Cooperation	4.0317	0.50	1
Conflict	4.0286	0.51	2
Communication	4.0111	0.83	3
Coordination	3.962	0.85	4
Cognition	3.880	0.86	5
Coaching	3.5615	0.99	6

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Table1 shows the second objective which seeks to evaluate the team processes in tender evaluation committees of construction projects in Nigeria. The mean scores of team processes in tender evaluation committee of construction project are more than 3.5 mid-point from the likert scale used for this study. These indicates that all team processes were assessed with mean of 3.5 and above, shows that team processes are present in tender evaluation committees of construction project.

Table 2 Relative important index for variables of team process in TEC

Cooperation in tender evaluation committees				
Demonstrated sense of competence and commitment to achieve our goals	**RII** 0.92	**RANK** 1	**MEAN** 4.58	**STD** 0.50
Believe in trust as an important of component	0.81	3	4.12	0.55
Have preference for and believe in our working together	0.81	4	4.04	0.61
Encourage each other's to take ownership and responsibility for completing specific task	0.66	5	3.59	1.01
Always looking out for the team progress.	0.83	2	4.13	0.51
The Conflict	**RII**	**RANK**	**MEAN**	**STD**
Were able to handle the conflict well to sustain the responsibility given to us.	0.83	1	4.15	0.57
Works constructively on issues arises until they are resolved	0.81	3	4.04	0.48
Took decision together to proffer solutions for a particular problem	0.79	4	3.94	0.59
Have good judgment when it comes to take decision	0.79	5	3.93	0.79
Works collectively with colleague and have knowledge on team strategy	0.82	2	4.08	0.68
Coordination	**RII**	**RANK**	**MEAN**	**STD**
Felt comfortable with ability of their colleague to control team behavior	0.84	1	4.21	0.49
contribution towards team are treated with respect and protected	0.83	1	4.17	0.46
Have clear understanding of their role and appropriate ways to handle the various tasks	0.79	3	3.93	0.68
Always looking forward on how to deliver their assignment effectively	0.79	3	3.93	0.73
Are expertise when it comes to perform tasks with little supervision	0.71	5	3.57	0.99
Communication	**RII**	**RANK**	**MEAN**	**STD**
Always have good interaction with one another	0.88	1	4.40	0.49
Decide on what type of communication that works best for them	0.79	3	3.96	0.63
Use to communication with one another outside the committee meetings for the next line of action	0.76	5	3.81	0.74
Regularly meet clear area of uncertainties	0.81	2	4.04	0.53
Participate in discussion to express their emotion	0.77	4	3.84	0.86

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Coaching	RII	RANK	MEAN	STD
Felt comfortable with the concept of shared leadership among the committee	0.75	3	3.77	
Offer assistance whenever any colleague is finding it difficult to performed	0.60	4	2.99	
Are willing to make initiative for unassigned tasks	0.60	4	2.99	
Set out objectives and also strategize on how to accomplish them	0.76	2	3.82	
Work cohesively to achieved results	0.85	1	4.24	
Cognition	**RII**	**RANK**	**MEAN**	**STD**
Spent time with each other's to clarify team expectations	0.69	5	3.36	0.86
Show appreciation towards one another whenever responsibilities are discharged	0.75	4	3.73	0.75
Have effective skills and knowledge to carry out their tasks	0.83	2	4.13	0.60
Works consistently with one another for the purpose of goals accomplish	0.83	1	4.14	0.70
Face challenges during saddle responsibilities and they are able to overcome.	0.79	3	3.94	0.83

Table 2 shows the relative importance index for the various elements of variables of team processes by their separate hierarchies reveals that team process variables are highly present in tender evaluation committees of the respondents' organizations as the mean score are above the mid-point of 3.5 bench mark.

Table 3 Relationship among team processes in tender evaluation committees

		Cooperation	Conflict	Coordination	Communication	Coaching	Cognition
Cooperation	Pearson Correlation	1	0.016	0.017	-0.139	-0.069	-0.079
	Sig. (2-tailed		0.883	0.875	0.206	0.535	0.475
	N	84	84	84	84	84	84
Conflict	Pearson Correlation	0.016	1	.388**	0.197	-0.085	0.059
	Sig. (2-tailed	0.833		O.001	0.073	0.443	0.596
	N	84	84	84	84	84	84
Coordination	Pearson Correlation	0.017	.348**	1	.236*	-0.145	-0.084
	Sig. (2- tailed	0.875	0.001		0.031	0.187	0.450
	N	84	84	84	84	84	84
Communication	Pearson correlation	-0.139	0.197	.236*	1	-0.042	-0.049
	Sig. (2-tailed	0.206	0.073	0.031		0.7030	0.660
	N	84	84	84	84	84	84
Coaching	Pearson correlation	-0.069	-0.085	-0.145	-0.042	1	0.145
	Sig. (2- tailed	0.535	0.443	0.187	0.703		0.187
	N	84	84	84	84	84	84
Cognition	Pearson correlation	-0.079	0.059	-0.084	-0.045	0.145	1
	Sig. (2-tailed	0.475	0.5.96	0.450	0.660	0.187	
	N	84	84	84	84	84	84

** Correlation is significant at the 0.01(2- tailed) *correlation is significant at the 0.05 level (2-tailed

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Results of Data Analysis

The tables reveals very week correlation relationship exist between cooperation and conflict (r=0.016, P=0.883).

And also reveals very week correlation relationship exist between cooperation and coordination (r=0.017, p=0.875) and that insignificant relationship exist between cooperation and coordination. Cooperation and communication (r=-0.139 p=0.206 shows that no strong relationship exist between them. cooperation and coaching have no strong relationship (r=-0.069, p=0.535) that 7% shows a weak correlation relationship exist.

Cooperation and cognition (r=--0.079, p=0.475) shows that negative correlation relationship exist between them. The result reveal that Conflict and cooperation have insignificant relation between them with (r=0.016, p=0.883.) Conflict also correlates very strong with coordination (r= 0.348, p=0.001) Conflict and communication (r= 0.19, p=0.073) shows that very weak relationship exist between them. The results reveal that Conflict and coaching insignificant relationship exist with (r=-0.085, p=0.443). Conflict and cognition (0.059, p=0.596) shows very weak correlation relationship. Coordination and cooperation (r=0.017, p=0.875) shows that there is insignificant relationship exist between them.

Conclusion

This study noted the important conclusions with regards to the objectives.This research shows that team processes within tender evaluation committees have significant positive connection. The findings from this analysis highlight the team processes in a typical construction projects in construction organization. However, there are shortcomings in handling the processes and different dimensions of team processes found within tender evaluation committees when it comes to selection of contractors In accordance with the previous research, we found studies which connect team processes within tender evaluation committees.

Recommendation

A constant use of team processes is recommended, because it will increase the ability of tender evaluation committees in contractors' selection. To improve team processes, management should encourage tender evaluation committees in subsequent adoption of team processes. The construction organizations stakeholders ought to establish development approach to encourage team processes within tender evaluation committees.

REFERENCES

Abubakar, M. and Ahmed, Z. (2018). Significant factors affecting contractors performance of construction project in Nigeria. Journal of Applies Science, 13(2), 27-54.

Arrow, C. and Grath, M.C. (2020). "Improving teamwork: the effect self-assessment on construction

design teams. *Design Studies*, 21, 223-238.

Aube, T.O., and Savoie, W. (2016). Framework for evaluating bids of construction contractors Journal of Management in Engineering, 15(2), 72 – 78.

Bandow, D.and Tuckman, R.A. (2016). The team effectiveness critique." *The 2016 Annual: Developing Human Resources*, University Associates.

Barnlund, K.F, (2018). Team Effectiveness Survey. Jossey-Bass, 6-8.

Bell, S.T. and Kozlowski, C. (2003). Team performance shaping factors in IPME (Integrated Performance Modeling Environment)." Fort Halstead, UK.

Darvish, A. (2018). Handbook of Engineering Management, Oxford: Butterworth-Heinemann Ltd.

Deetz, R. (2014). Value Engineering: Practical Applications for Design, Construction, Maintenance, & Operations. Kingston, MA: R.S. Means Companying

Dreu, P. and Weingart, K.P. (2013). Communication in Construction Team. Taylor & Francis, Oxon, 298.

Guastro, A. and Guastello, P. (2018). Data Analysis Using correlation and Multilevel/Hierarchical Models. Cambridge University Press, 625.

Hackman, J. R. (2019). Handbook of Organizational Behavior. J. Lorsch, Prentice-Hall, Englewood Cliffs, NJ.

Hackman, J.R., and Wageman, R. (2015). A normative model of work team effectiveness (Technical Report No.2). New Haven, CT.

Hendrickson, C. (2019). Project Management for Construction Fundamental Concepts for Owners, Engineers, Architects and Builders. Prentice-Hall, Inc., Englewood Cliffs, New Jersey

. Jehn, B. (2015). Educational research: quantitative, qualitative, and mixed approaches. SAGE, 639.

Kem, T.S. and Sam, K. (2014). Improved sub- contractor selection employing partnering principles. ASCE Journal of Management in Engineering 16(3), 47 – 57.

Kumaraswamy, M.M. and Mathew, J (2016). Contractor evaluation and selection - A Hong Kong Perspective. Building and Environment, 31(3), 276– 282.

Morgan, T.S. and Karam, P. (2020). Qualitative Data Analysis. Sage, Thousand Oaks, CA.

Morledge, R. and Smith, A. (2013). Building procurement. (2nd edition). UK.

Ng, S.T. and Wan, W.Y. (2019). Appraisal of subcontractor performance – Criteria and their importance. In A.S. Kazi (Ed.). Advancing Facilities Management and Construction through innovation. .

Olayemi, P. and Felix, M. (2020). Factors influencing Development of Construction Enterprises in Singapore. Construction Management.

Parker, G. M. and Piccolo, M. (2019). Team players and Teamwork - New Strategies for Developing Successful Collaboration. John Wiley & Sons, San Francisco, 221

Rittman, J. and Marks. N. (2017). The new why teams don't work: what goes wrong and how to make it right. Berrett-Koehler, 271.

Salas, E. and Marissa, L. (2018). Understand and improving team work in organizations: A Scientifically Base Practical Guide. Published online in Wiley on line library (wileyonlinelibrary,com).

Salas, E. Kendall, P. (2019). Mapping team performance shaping factors QinetiQ, Fort Halstead

Ted, Y.I. (2013). A Decision Model proposal for construction contractor selection in Turkey, Building and Environment, 39, 468-480

Tiong, H.P, (2016). An accelerated Subcontracting and procuring Model for construction project. Automation in construction, 11(1), 105-125.

Zaccaro, P. (2016). Correlation Analysis with SPSS. New York University.(In folder ollinearity)