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Article

Team commitment and performance of construction project in Nigerian construction industry

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Abstract: Project success requires team commitment, which is a product of an encouraging culture of cooperation and teamwork among project team members. The research work aims to ascertain which components of team commitment affect the performance of construction projects in Nigeria. The research adopted a quantitative design where questionnaires were used for data collection. Out of 1233 questionnaires distributed, 975 were received with valid responses and used for data analysis. Data were analysed descriptively using percentage, mean score, and relative agreement index. The study showed the factors of team commitment having an effect on project performance, as rated by the respondents, to be: Normative component: "Project team members owe a great deal to this organisation"; "Members of the project team do not feel it is right to quit the project before completion"; "This organisation has a great deal of personal meaning for project team members". Affective component: "This organisation deserves the loyalty of project team members"; "The project team considers the team's problems as their own. Then, "One of the few negative consequences of leaving this organisation will be the scarcity of available alternatives" is for continuance. In conclusion, the emotional attachment of the team members and sense of obligation to the project team and construction organisation are the driving forces behind pushing for the successful outcome of projects within the Nigerian construction industry.

Keywords: team member; project organisation; project manager; Nigeria; project delivery; success

1. Introduction

The final output of all construction activities is a product of the amalgamation of inputs and efforts of individuals (professionals, skilled and unskilled artisans) working together as a team under the ambit of construction organisation. Therefore, construction workers are essential to the successful outcome of a construction project (Aghimien et al., 2019). Olasunkanmi et al. (2023) submitted that durable infrastructure and habitable structures as end products of construction activities are achieved via teamwork and effective team commitment championed by a project manager with an appropriate leadership style. The on-site team coordinator, or project manager (PM), is saddled with the onerous task of achieving the organisational goal of project success as specified in the contractual performance specification. A study has shown that team commitment and overtime greatly improve project performance (Keeman and Rostami, 2021). Team commitment is a product of an encouraging culture of cooperation and teamwork among employees. Either a short-term or long-term project team, Bishop and Scott (2000) modified the earlier definition of Mowday

et al. (1982) that team commitment is the experience of a team member in terms of acceptance, support, and the intention to remain part of the team. Occasioned by the level of organisational commitment to the well-being of the team members, especially the reassurance of employees' job security, just as the team members are expected to show some sort of loyalty, support, and attachment to the organisation. This is an indication of the expectation of commitment from the organisation to the employee and vice versa. Commitment is an attachment or loyalty within an organisation (Nehmeh, 2009). A team member's commitment is measured by his/her identification with the goals and values of the organisation while attempting to retain his/her loyalty to them as well (Miller, 2003). The commitment of project team members is enhanced by the behaviour and leadership style of the project manager. According to Mathieu and Zajac (1990), lack of withdrawal tendencies (absence, lateness), constant display of supportive tendencies, and additional behaviours (acceptance of emergency tasks, prompt assistance to others, and creative and innovative ideas) are all indicators of a positive relationship between team commitment and project team performance. The enactment of creative and supportive behaviours by committed team members is a function of the display of an appropriate leadership style within the project organisation.

Among others, team commitment and effective leadership with an appropriate style are two fundamental requirements for project success. Turner (2008) encouraged project managers to adopt a downward approach as one of the three-directional approaches to leadership to ensure team member commitment to the project is won in the process. Though the task of driving project performance seems daunting, with sound leadership skills, styles, and team commitment, hitting the target becomes easy. The interest and commitment of individual team members within a project organisation are motivated or otherwise by the prevailing leadership style. It is crucial for sensitising the attitude of subordinate team members. There are many different construction professionals/non-professionals from various disciplines and backgrounds within the construction organisation, hence, the importance of leadership with an appropriate style. As canvassed by Swenson et al. (2016), through a social process of leadership, subordinates could be brought to work in alliance with the organisation in order to realise the aim of achieving the common objective. The PM, who is the group leader, has the onerous task of getting the best from seemingly ordinary team members by not only knowing and showing the right way but also leading and going that way.

Construction projects are conceived to accomplish definite outcomes, mostly with the creation of new facilities, upgrading or refurbishing existing ones, or maintenance for facelifts. They are of different sizes, but either small or mega, involve utilisation of resources. Each construction project has a definite purpose for which it is conceived and functions to perform upon completion. Thereafter are the other objectives of timely completion, within a certain stipulated budget, and to a desired quality standard. Achieving these desired objectives is possible only within the ambit of a construction organisation that encourages teamwork and commitment via a project manager with sound skills and an appropriate leadership style. The yardsticks with which project completion is often measured are referred to as performance. Project

performance is an ongoing review of the efficiency and importance of a given project. Project success or performance is defined as realising the cardinal aim of the organisation by completing the project on time while also meeting the expectations of major stakeholders regarding safety, quality, environment, and legislation (Johan and Piet, 2014). In the opinion of Ujene et al. (2013), the extent to which the desired goal or objective of an organisation is accomplished is termed performance. The concept of project success is embedded in performance. A construction project is said to be successful when the expectations and requirements of all stakeholders are met, which means fulfilling the objectives of cost, quality, time, safety, environmental, and legislation. This is also called project performance.

Additionally, due to the many participants in construction who play a vital role in achieving the objective of the project, Soetanto (2002) therefore defines performances as the contribution of participants (clients, architects, or contractors) in carrying out the necessary work required to accomplish the project.

Many researchers within the Nigerian construction industry have worked on organisation/team commitment. Akintayo (2010) examined what induced workers commitment to their jobs and recommended the introduction and provision of organisational support programs for all levels of workers. In the earlier work by Oyewobi et al. (2012), which observed the existence of a correlation between job satisfaction and organisational commitment among some industry professionals (the quantity surveyors), it was concluded that organisation commitment drives a sense of accomplishment, especially when adequate recognition opportunities are shown. Abiola-Falemu (2013) investigated the relationship among organisational culture, job satisfaction, and commitment among construction participants in Lagos. According to the findings, there was a positive correlation between job satisfaction and employees' commitment. Oyewobi et al. (2019), in their recent work, concluded that organisational commitment mediates the impact of work-life balance on organisational performance of professionals within the construction industry in Nigeria, though only female counterparts. However, as much as had been investigated about team commitment within the industry in Nigeria, not one single mention was made of which of these factors of team commitment influence the performance of construction projects, which created the gap for this research effort to explore.

Given the aforementioned background, the purpose of this work is to determine how team commitment impacts construction project outcomes in Nigeria. While primarily the objective identifies which of the constructs of team commitment affect the performance of project output, the findings shall help the construction organisations maximize the beneficial ones and improve upon others for the overall improvement of project delivery.

2. Literature review

2.1. Team commitment

Commitment to organisational goals is the bedrock of teamwork, especially in projects. This thrives as individual members of a project team strive toward realising the purpose of the team instead of individual goals. It is an effort by a team member

to get involved and identify with the organisation or project. Hussein and Hafsield (2016) emphasised the significance of commitment (to/of the organisation or project team member) to the project outcome, which is generally regarded as a key measure of project success. There are three components of commitment: belief in and agreement with the ethos of the organisation; readiness to sacrifice more effort for the organisation; and expression of interest in remaining with the organisation. The concept of commitment is strong and vital; it is relevant to both employees and organisations. Mowday (1998) argued that there is a positive relationship when an employee is committed to working in an organisation.

2.1.1 Types of commitment

There are three classifications of commitment by Meyer et al. (1993): affective, continuance, and normative. Individuals' emotional bonding with the establishment is affective; association on the basis of the cost of living or other rewards for staying is continuance commitment (Meyer et al. 1993). Meyer and Allen (1991), on the other hand, regarded normative as having a sense of obligation towards the goals of the establishment. Mahdi et al. (2014) posited normative to be when an employee is obsessed with or duty-bound to remain with the establishment. Various researchers have concluded that showing more acceptance, being supportive, and being cooperative as qualities desired of project team members are positively related to both the affective and normative components of team commitment (Akhtar and Hassan, 2021; Becker and Billings, 1993; Paolucci et al., 2018). Basu et al. (2002) believed organisational commitment is the support from project organisation that has a positive influence on realizing project goals. Additionally, organisational commitment is proportional to a team member’s degree of attachment and sense of belonging. Therefore, as a team member’s degree of attachment and sense of being carried along increases, organisational commitment also increases (Zehir et al., 2012). In terms of performance, according to Gulzar et al. (2012), commitment is pivotal to reducing schedule and cost overruns in construction projects.

2.2. Teamwork

The major attribute of the construction industry is teamwork, whereby the delivery of projects is done by a team of many professionals, such as architects, builders, subcontractors, material suppliers, specialists, planners, and engineers (Chow et al., 2005; Winch, 2009; Spatz, 2000). Luca and Tarricone (2001) suggested that the flexibility of team members and easy adaptation to a cooperative working environment will enable the achievement of goals through collaborative efforts instead of individualised, competitive goals. The importance of a team, according to Jarad (2012), to project performance cannot be overlooked. Among the critical factors to project success/performance is team collaboration, each team member’s performance, and also that of the entire team as a unit. Project success or performance is impossible to secure without a performing team. A leader can only have a performing team after he might have spurred them up for such an expected performance and created an environment for the team to function. Additionally, it is only a leader with clarity of vision, sound reasoning, a proactive schedule, the capacity to allure gifted people, and a thoroughbred team that can lead a project toward success. With these qualities, it

becomes easy for the leader/manager to ensure the team members execute the job successfully. The required attributes for effective teamwork are summarised in **Table 1**.

Table 1. Attributes for effective teamwork.

Commitment to team success and shared goals	Team members are committed to the success of the team and their shared goals for the project. Successful teams are motivated, engaged and aim to achieve at the highest level
Interdependence	Team members need to create an environment where together they can contribute far more than as individual. A positive interdependent team environment brings out the best in each person enabling the team to achieve their goals at a far superior level (Johnson and Johnson, 1995; Johnson and Johnson, 1999). Individuals promote and encourage their fellow team members to achieve, contribute, and learn;
Interpersonal skills	Includes the ability to discuss issues openly with team members, be honest, trustworthy, supportive and show respect and commitment to the team and to its individuals. Fostering a caring work environment is important including the ability to work effectively with other team members;
Open communication and positive feedback	actively listening to the concerns and needs of team members and valuing their contribution and expressing this helps to create an effective work environment. Team members should be willing to give and receive constructive criticism and provide authentic feedback;
Appropriate team composition	is essential in the creation of a successful team. Team members need to be fully aware of their specific team role and understand what is expected of them in terms of their contribution to the team and the project; and
Commitment to team processes, leadership and Accountability	team members need to be accountable for their contribution to the team and the project. They need to be aware of team processes, best practice and new ideas. Effective leadership is essential for team success including shared decision-making and problem solving.

Source: Researcher's literature review (Johnson and Johnson, 1995; Johnson and Johnson, 1999).

2.3. Team commitment and project performance

Project performance is the ultimate target of every construction project. Oyaya (2017) said team commitment is cardinal to a project realising its objective. The definition of roles, tasks, and responsibilities by project managers at inception is key to the successful implementation of construction projects. These are then clearly communicated to members of the project team through the establishment of team rules and values. With this in mind, each team member, having understood their roles and responsibilities, proceeds towards realising project objectives with the minimum or fewer conflicts (Widener, 2004). Appreciation of the project objectives and a show of willingness to continue working with the team are attributes of a committed member (Meyer and Allen, 1991). The manifestation of commitment takes place in three ways: behavioural intentions, motivating forces, and attitudinal characteristics, and they all influence behavioural and attitudinal outcomes. Common values and beliefs solicited by the project team are shared by every committed team member. They demonstrate a willingness to abide by the team and a strong desire to exert effort in all teams's engagement. Various authors showed that committed team members believe that their

expectations have been met by their organisation. These in turn give them the feeling that they are obliged to reciprocate by fervently showing more commitment to the team (Witt et al., 2001; Gallagher et al., 2015).

People and attitude are essential for the performance of construction projects (Turner, 1999).

The components of people's factors are leadership, management, teamwork, influence, and inspirational motivation. While attitudinal factors consist of commitment to team objectives, motivation, support from all stakeholders right at the first attempt, and a common vision (Turner, 1999), The success of projects under leadership is attributed to this model. Attendance is another indicator of commitment in a project team, as pointed out by Turner (2014); it comprises punctuality, sound health, free flow of work, labor turnover, and clarity of goals. Clarity of goals implies that each team member has a clear understanding of their assigned role in the team. Other authors added high output as an indicator of commitment. Its main attributes are: achievement of a common goal; searching for real solutions; solving problems through knowledge and skills; and the ability to search out broadly tested knowledge and established solutions by the team. Also, manifesting strong team unity by maintaining honesty and trust among staff, concepts and knowledge sharing, purpose-driven meetings, and shared goals are all commitment indicators (Settoon et al., 1996; Way, 2002; Senior and Swailes, 2004).

The effectiveness of the project team must be determined by the project manager. This is done by assessing the attainment of assigned targets for the employees in conjunction with whether the individual's team objectives and motivational desires have been met. The responsibility of ensuring the achievement of both corporate and individual objectives is that of project managers.

While attempting to meet corporate goals, effort must be made to sustain the team's morale and effectiveness and avoid staff attrition (Turner, 2014; Gwavuya, 2011; Gardner et al., 2004; Bass and Avolio, 1997).

Ghazinejad et al. (2018) considered the three important shared values of trust, openness, and commitment and examined their impacts on project performance and outcome. Though it focused on science and innovation research projects, the findings and outcomes were found relevant to construction projects as part of human endeavour. The findings revealed the practice of these core values (trust, openness, and commitment) in research establishments, which are valuable ingredients of teamwork. The study concluded that trust and openness enhance cooperation, understanding, and commitment.

Allen and Meyer (1990) developed organisational commitment questions based on the three divisions of commitment (normative, affective, and continuance); these were earlier measured by Mowday et al. (1979) and used by many researchers, such as Oyaya (2017), Fasola et al. (2013), and others. The indices are shown in **Table 2**.

Table 2. Organisational commitment measurement indices.

1	The project team considered the team's problems as their own.
2	Members of the project team did not feel it was right to quit the project before.
3	Project team members were obligated to complete their contracts at the project.
4	I would be very happy to spend the rest of my career with this organisation.
5	I really feel as if this organisation's problems are my own.
6	I do not feel a strong sense of "belonging" to my organisation.
7	I do not feel "emotionally attached" to this organisation.
8	I do not feel like "part of the family" at my organisation.
9	This organization has a great deal of personal meaning for me.
10	I do not feel any obligation to remain with my current employer.
11	Even if it were to my advantage, I do not feel it would be right to leave my organisation now.
12	I would feel guilty if I left my organisation now.
13	This organisation deserves my loyalty.
14	I would not leave my organisation right now because I have a sense of obligation to the people in it.
15	I owe a great deal to my organisation.
16	Right now, staying with my organisation is a matter of necessity as much as desire.
17	It would be very hard for me to leave my organization right now, even if I wanted to.
18	Too much of my life would be disrupted if I decided I wanted to leave my organisation now.
19	I feel that I have too few options to consider leaving this organisation.
20	If I had not already put so much of myself into this organisation, I might consider working elsewhere.
21	One of the few negative consequences of leaving this organisation would be the scarcity of available alternatives.

Source: Allen and Meyer, 1990.

Organisational commitment questions are thus modified to team commitment measurement indices to suit the study and then used as variables in the study questionnaire.

2.4. Project performance

Project performance is an ongoing review of the efficiency and importance of a given project. Performance is regarded as an assessment of how satisfactorily individuals or groups of people have done in pursuing certain organisational goal (Ankrah and Proverbs, 2005). Ujene et al. (2013) said it is the degree of achievement of an objective. According to Armstrong and Baron (1998), performance management is a coordinated technique for ensuring continuous delivery of success by the organisation through developing the capacity of the employees, teams, and other contributors. Many individuals play different roles in ensuring the construction project goal is realised, therefore, Soetanto (2002) defines performances as inputs of participants (clients, architects, or contractors) towards the process of accomplishing the project. Ankrah and Proverbs (2005) suggested two perspectives on approaching performance: the first is viewed from the business consciousness of the contractor, while the second is associated with the performance of the project itself. The business aspect seldomly enjoys good consideration in construction management research but is often evaluated by financial outputs, ratios, levels of productivity, and other personal appraisal indices.

However, in some cases, in references to performance (either contractor on a business basis or construction project output) and research, the emphasis had been on project performance (Soetanto, 2002; Xiao and Proverbs, 2003). This is so because a

construction project is a real business endeavour that represents a major investment by the client. The owner, as a major investor and key stakeholder in the construction industry, will always look at performance from the angles of prompt delivery of projects, an accurate budget, and, as specified, providing good service, satisfaction of workers, health, and safety within optimum life-cycle costs. Added to these features is meeting customers' expectations, due to the importance attached to the satisfaction and welfare of the client and customer. The level of satisfaction derived by team members in working together is one key criterion to determine success upon the accomplishment of a project. Project performance is the act of measuring project progress in order to monitor operations and ensure the detection of early signals of obstacles that may hinder the smooth realisation of project delivery. Data that can help in improving the planning and performance of future projects is garnered; this is an additional benefit. According to Luu et al. (2008), the art of gauging performance is a continuous and endless improvement. Primarily, the purpose of performance assessment is to assist managers and team members in the development of direction, traction, and an action plan for the organisation (Cokins, 2006). As a rule of thumb, improving the success rate of delivery of products and processes by contractors is achieved through benchmarking.

3. Research methods

The research design, population frame and sample, data collection, and instrument are highlighted.

3.1. Research design

A quantitative and survey approach based on the nature of the questions to be answered was employed by the study (Otokiti, 2015; Dainty, 2008). Specific research questions were conclusively answered by quantitative techniques, by this quantitative technique, necessary data on the extent of influence of team commitment on project performance was extracted from the respondents. using descriptive analysis (Malhotra and Birks, 2006). Therefore, by this quantitative technique, necessary data on the extent of influence of team commitment on project performance was extracted from the respondents.

3.2. Population and sample

Creswell (2009) said the collection of well-defined individuals or objects who have similar features or characteristics is known as the research population. Therefore, employees of construction firms (both indigenous and foreign) operating in the study area (FCT (Abuja), Lagos, and Rivers) constitute the research population. The study areas are thus chosen based on the availability of local, multinational construction firms with enormous construction activities, hence confirmation of their status as centre of economic investment and macro-capital cities in Nigeria. A small portion of the population that represents the whole is sampled, while the process of deciding this portion is sampling. Reducing the number of members of a population to a manageable size is also called sampling (Teddlie and Yu, 2007). The essence of sampling is to help draw inferences about the whole population (Corbeta, 2003). The respondents were

project managers (PMs), professionals (referred to as project team members (PTM), who are architects, builders, quantity surveyors, and engineers), and the firm's project supervisors (SUP). The source of the population frame was the Federal Inland Revenue Service (FIRS). All the construction firms that have registered with FIRS with evidence of tax payment through a tax identification number (TIN) over the last five years were deemed to still be in operation and not yet gone extinct.

The sample size was determined using the Taro Yamane (1967) equation as shown in Equation (1):

$$n = N/(1+N) \times (e)^2 \quad (1)$$

where n = the sample size; N = the population under consideration; e = the margin error, usually (0.05). Adoption of Yamane (1967) equation for determining the sample size is because of its simplicity, reliability and validity. It has been used by many researchers over the years. Sample frame and size are as displayed in **Table 3**.

Table 3. Sample frame and size.

State	Number of firms	Sample
Lagos	235	148
Rivers	142	105
FCT (Abuja)	260	158
Total	627	411

3.3. Sampling techniques

Stratified random sampling was used to identify the construction firms, while the purposive technique was employed to identify the actual respondents within each firm identified. This sampling method was employed because of the heterogeneous nature of the population. The major projects executed by the construction firms were taken into consideration for assessment without regard to the clients, nature, or types. The projects are primarily buildings, roads, hospitals, or anything else worthy of evaluation.

As shown in **Table 3**, a sample size of 411 firms was extracted by employing Taro Yamane's equation from the sample frame of 627 firms. With 3 respondents representing each firm, a total of 1233 respondents were used for the study. The distribution per location takes the following order: FCT (Abuja)—158 firms; Lagos—148 firms; and Rivers—105 firms.

3.4. Data collection and analysis

Data collection was done by means of a structured questionnaire. This was deemed appropriate because of its numerous benefits, including ease of analysis and zero tolerance for bias. A total of 1233 questionnaires, of which 975 were returned with valid responses, were used for the analysis. Descriptive analysis involving percentage, mean score, and relative agreement index (RAI) was done. The questionnaires contained two parts. The first part captured the demographic features of the respondents, which include sex, educational qualification, stake in the projects, professional affiliations, construction experience, project size, type of construction,

and others. Part two sought the perceptions of respondents on the extent of the influence of team member commitment on project performance.

Different measurement scales—nominal, ordinal, and interval—were employed in the study. While nominal and interval scales were used to capture the demographic features of respondents, ordinal scales were used for the second part. The ordinal was on a five-point Likert scale of 5-strongly agree, 4-agree, 3-moderate, 2-disagree, and 1-strongly disagree. The respondents were asked to rate the extent of the influence of team member commitment on project performance.

The inner consistency of the collected data was measured by the Cronbach Alpha coefficient. This was to ensure the reliability of the test instrument. The reliability test was carried out among the representatives of the population in two states included as part of the study area. It was done on two occasions at an interval of fourteen days, based on the definition of Kalyviotis (2013) and already used by Ayopo (2011). The fourteen-day time frame was fair enough to ensure the stability of the results to be ascertained. Hinton et al. (2004) gave a four-cut-off point for reliability as: 0.90 and above (excellent reliability); 0.70–0.90 (high reliability); 0.50–0.70 (moderate reliability); and 0.50 and below (low reliability). The test instrument had a Cronbach's Alpha value within the range of 0.85–0.95, hence highly reliable and internally consistent.

The basic descriptive data analysis was done using Statistical Package for Social Science (SPSS) version 1.

4. Results and discussion of findings

4.1. Sample characteristics

The respondents, who are major participants in the study, were found to be domiciled in construction firms by a pilot study conducted. Therefore, the research instrument for gathering data was distributed to the respondents identified by the firms within the study area for their opinions. Shown in **Table 4** are the locations of the firm used for the research and the quantity of questionnaires administered, returned, used, and discarded (both numerical and percentages) from each location.

Table 4. Descriptive result of the return rate of questionnaire administered.

Firm	**Administered**		**Returned**		**Used**		**%**	**Discarded**	
Location	No	%	No	%	No	%	Per location	No	%
Lagos	444	36.1	355	36.1	353	36.2	79.5	2	22.2
Rivers	315	25.5	275	27.9	271	27.8	86	4	44.4
FCT(Abuja)	474	38.4	354	36.0	351	36.0	74.1	3	33.3
Total	1233	100	984	100	975	100		9	100

A return rate of 79.8% (N = 1233) was accomplished by the administered instrument, basically because of the little motivation enjoyed by the research assistants in the study areas. As displayed in Table 4, 36% of the total distributed went to Lagos, Rivers 25.5%, and FCT (Abuja) 38.4% of the share. The quantity cast away in each location was due to some irregularities discovered. Some were left unattended to; a few were mutilated, while others had multiple answers to the same option. In all, less

than 1% (N = 9) were unused from a total of 984 returned. About 79.1% of the entire research instrument (N = 975) was distributed, and 99.5% of the valid ones were employed for the work.

Presented in **Table 5** are the demographic features of the respondents whose opinions were sought (sex, experience, academic and professional qualifications, and many others). Worth mentioning is the fact that fewer or scanty women are found in the construction industry in Nigeria, as observed by Verwey (2008), Haupt (2012), and Fester (2012). From Table 5, female and male participants are 12.5% and 87.5%, respectively.

Table 5. Descriptive results of respondents' characteristics.

Features	Sub features	%	N
Sex	Male	87.5	836
	Female	12.5	139
	Total	100.0	975
Educational qualification	OND	7.4	62
	HND	32.2	381
	BSc/BTech	24.2	226
	PGD	6.6	66
	MSc/MTech	21.9	186
	Others	7.7	54
	Total	100.0	975
Stake in the project	Project manager	33.0	325
	Project team member (PTM)	33.6	326
	Supervisor (SUP)	33.3	324
	Total	100.0	975
Professional affiliation	NIA	15.4	148
	NIOB	21.1	175
	NSE	36.5	343
	NIQS	15.7	160
	None	11.4	149
	Total	100.0	975
Membership status	Technician	0.7	7
	Licenciate	0.7	7
	Associate	3.4	33
	Graduate	26.5	259
	Corporate	51.9	506
	Fellow	1.44	14
	None	15.3	149
	Total	100.0	975
Years of experience	1–5 years	1.1	8
	6–10 years	10.3	93
	11–15 years	17.1	224
	16–20 years	37.0	346
	Above 20 years	34.5	304
	Total	100.0	975
Nationality	Nigerian	89.7	879
	Non-Nigerian	10.3	96
	Total	100	975
Farm size	Small firm (0–49)	131	37.3
	Medium firm (50–100)	92	26.2
	Large firm (100 and above)	128	36.5
	Total	351	100.0
Project size	Below 10 million	-	-
	10–20 million	-	-
	21–50 million	4	1.1
	51–100 million	32	9.1
	100–900 million	122	34.8
	above 1 billion	193	55.0
	Total	351	100.0
Construction type	Building	45.43	443
	Road	26.05	254
	Hospitals	6.05	59
	Sport complex	1.85	18
	Others	20.62	201
	Total	100.0	975

4.2. Team member commitment and performance of construction projects

The perceptions of the respondents were sought on the influence of team member commitment on the performance of construction projects, which is the purpose of the study. They were asked to show their level of agreement with the extent to which factors of team commitment influence the outcome of construction projects. Some selected organisational commitment questions, as developed by Mowdays (1982) and already used by Fasola et al. (2013) and Oyaya (2017) as team member commitment measurement indices, were modified and presented to the respondents. The ranking of the variables was done by the respondents to reveal their level of agreement with the extent to which these factors (variables) influence projects' outcomes. Analysis was done based on a 5-point Likert scale of very small extent, small extent, medium extent, large extent, and very large extent and assigned the weights of 1, 2, 3, 4, and 5, respectively. The ranking of the results obtained from data analysis was done by calculating the Relative Agreement Index (RAI) from the mean score. This portrays the frequency of the influence of team commitment on project performance.

4.3. General level of agreement by the whole project team on the extent at which team member commitment influence project performance

The general perception of the whole project team is shown in **Table 6**. A comparative analysis of the RAIs and rankings by each group of respondents was done, and the result is as displayed in **Table 6**. Extracted from **Table 6** is another table, **Table 7**, that shows the five topmost variables of team commitment that affect project performance by the respondents' ranking. Each component of team commitment is enclosed in a bracket: AFF for affective, CON for continuity, and NOR for normative. On an overall basis, the entire construction team opined that "one of the few negative consequences of leaving this organisation will be the scarcity of available alternatives"; "project team members owe a great deal to this organisation"; "this organisation deserves the loyalty of project team members"; "this organisation has a great deal of personal meaning for project team members"; "the project team considers the team's problems as their own" with RAIs 0.8055, 0.7924, 0.7854, 0.7707, and 0.7621 are ranked first, second, third, fourth, and fifth in that order. Expectedly, there is no divergent opinion on the unique and distinctive ranking given to "One of the few negative consequences of leaving this organisation will be the scarcity of available alternatives". The sum total of the perceptions of each group of respondents forms the aggregate opinion expressed by the entire construction team. This view, as expressed, confirms de facto the scarcity of alternatives as being instrumental to the commitment level of construction employees.

Table 6. Perception of the entire construction project team on the extent of influence of team member commitment of project performance.

Team member commitment measurement	Overall			PM			PTM			SUP		
	N	RAI	Rank	N	RAI	Rank	N	RAI	Rank	N	RAI	Rank
One of the few negative consequences of leaving this organisation will be the scarcity of available alternatives.	975	0.8055	1st	325	0.7809	6th	326	0.8092	1st	324	0.8265	1st
Project team members owe a great deal to this organisation.	975	0.7924	2nd	325	0.8562	1st	326	0.7761	2nd	324	0.7438	2nd
This organisation deserves the loyalty of Project team members.	975	0.7854	3rd	325	0.8529	2nd	326	0.7730	3rd	324	0.7302	3rd
This organisation has a great deal of personal meaning for project team members.	975	0.7707	4th	325	0.8511	3rd	326	0.7595	5th	324	0.7012	6th
The project team consider the team's problems as their own	975	0.7621	5th	325	0.8129	4th	326	0.7644	4th	324	0.7086	4th
Members of the project team do not feel it is right to quit the project before completion	975	0.7520	6th	325	0.7994	5th	326	0.7528	6th	324	0.7037	5th
Project team members really feel as if this organisation's problems are their own.	975	0.7056	7th	325	0.7483	7th	326	0.7061	7th	324	0.6623	8th
Project team members are obliged to complete their contracts at the project.	975	0.6939	8th	325	0.7225	9th	326	0.6798	8th	324	0.6796	7th
Project team members will not leave this organisation right now because they have a sense of obligation to the people in it.	975	0.6550	9th	325	0.7231	8th	326	0.6423	9th	324	0.5994	13th
If project team members have not already put so much of themselves into this organisation, they may consider working elsewhere.	975	0.6113	10th	325	0.5815	11th	326	0.6202	10th	324	0.6321	10th
Even if it is to their advantage, project team members do not feel it will be right to leave this organisation now.	975	0.5877	11th	325	0.6585	10th	326	0.5675	13th	324	0.5370	16th
Project team members do not feel a strong sense of "belonging" to this organisation.	975	0.5826	12th	325	0.5249	13th	326	0.5945	12th	324	0.6284	11th
Right now, staying with this organisation is a matter of necessity as much as desire.	975	0.5781	13th	325	0.4695	19th	326	0.6037	11th	324	0.6611	9th
Project team members feel that they have too few options to consider leaving this organisation.	975	0.5596	14th	325	0.5243	14th	326	0.5595	14th	324	0.5951	15th

Table 6. (*Continued*).

Team member commitment measurement	Overall			PM			PTM			SUP		
	N	RAI	Rank	N	RAI	Rank	N	RAI	Rank	N	RAI	Rank
Project team members do not feel "emotionally attached" to this organisation.	975	0.5471	15th	325	0.4782	17th	326	0.5558	15th	324	0.6074	12th
Project team members do not feel like "part of the family" at this organisation.	975	0.5432	16th	325	0.4818	16th	326	0.5497	16th	324	0.5981	14th
Project team members will be very happy to spend the rest of their career with this organisation.	975	0.5077	17th	325	0.5667	12th	326	0.4945	17th	324	0.4617	18th
Project team members do not feel any obligation to remain with the current employer.	975	0.4607	18th	325	0.4098	21st	326	0.4626	18th	324	0.5099	17th
Project team members will feel guilty if they leave this organisation now.	975	0.4574	19th	325	0.5157	15th	326	0.4460	19th	324	0.4105	20th
It will be very hard for project team members to leave this organisation right now, even if they want to.	975	0.4459	20th	325	0.4757	18th	326	0.4368	20th	324	0.4253	19th
Too much of the life of project team members will be disrupted if they decide to leave this organisation now.	975	0.3797	21st	325	0.4142	20th	326	0.3669	21st	324	0.3580	21st

N = Number of respondents; RAI = Relative Agreement Index; PM = Project Managers; PTM = Project Team Members and SUP = Supervisors.

Table 7. Top five influences of team member commitment on project performance based on perception of each group of respondents.

Rank	Project manager	Project team member	Supervisor
1st	Project team members owe a great deal to this organisation. (NOR)	One of the few negative consequences of leaving this organisation will be the scarcity of available alternatives. (CON)	One of the few negative consequences of leaving this organisation will be the scarcity of available alternatives. (CON)
2nd	This organisation deserves the loyalty of Project team members. (AFF)	Project team members owe a great deal to this organisation. (NOR)	Project team members owe a great deal to this organisation. (NOR)
3rd	This organisation has a great deal of personal meaning for project team members. (NOR)	This organisation deserves the loyalty of project team members. (AFF)	This organisation deserves the loyalty of project team members. (AFF)
4th	The project team consider the team's problems as their own. (AFF)	The project team consider the team's problems as their own. (AFF)	The project team consider the team's problems as their own. (AFF)
5th	Members of the project team do not feel it is right to quit the project before completion. (NOR)	This organisation has a great deal of personal meaning for project team members. (NOR)	Members of the project team do not feel it is right to quit the project before completion. (NOR)

Affective (AFF); Continuance (CON); Normative (NOR).

Just like each group of respondents, the entire construction team rated seventeen factors (81%) as having RAIs > 0.5, hence greatly influencing the team member commitment level. Those rated as having RAIs < 0.5 are: project team members do not feel any obligation to remain with the current employer, RAI = 0.4607; project team members will feel guilty if they leave this organisation now, RAI = 0.4574; it will be very hard for project team members to leave this organisation right now, even if they want to, RAI = 0.4459; Too much of the lives of project team members will be disrupted if they decide to leave this organisation now; RAI = 0.3797; which were ranked eighteenth, nineteenth, twentieth, and twenty-first, respectively. Though these

four variables are least ranked, they cannot be said to exert little or no bearing on influencing commitment level as their values are very close to average.

Summarily, most of the variables listed and considered have a direct bearing on influencing the commitment level of construction team members based on the allotted rating using RAI.

5. Conclusion

The submission of the respondent, as shown in **Table 7**, shows the variables of team commitment that have a dominant effect on the performance of construction output. The breakdown of these variables is primarily normative (47%), affective (40%), and continuance (13%). The emotional attachment of the team member and their sense of obligation to the project team and construction organisation in general are the driving forces behind pushing for successful delivery of construction projects within the industry in Nigeria.

The expectation of some sort of commitment from project team members is premised upon the provision of good working conditions and an environment that gives adequate attention to their yearnings and aspirations. Royal (2012) concluded that the expectation of high-level commitment is a function of working conditions that provide support for the employee. Having continuous commitment from project team members will depend on the direct relationship that transformational leadership provides or on rewards in the form of various incentives (the contingency component of transactional leadership) from the team leader, the PM. Either way, organisation support through the PM for optimal functionality and a supportive environment is a necessity. Beyond the emotional attachment, loyalty, and obligation of the project team member to the entity, the outcome of the study is in tandem with the submission of Balci (2003). A highly committed team member tends to show more interest and pursue the targets of the organisation and the project team in particular with strength and vigour. This he/she does by intentionally affecting organisational output through higher productivity, attending to tasks more responsibly, and displaying a higher sense of satisfaction and loyalty.

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