Organisational Culture, Job Satisfaction and Commitment of Lagos-based Construction Workers

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Abstract: *Little seems to be known by managers in the Nigerian construction industry that organisational culture fosters job satisfaction and employee commitment which in turn impact on performance. The starting point to demonstrate that organisational culture promotes job satisfaction and employee commitment is to examine if there is a relationship among the three constructs which is the purpose of this paper. A structured questionnaire based on Cameron and Quinn Organisational Culture Assessment Instrument (OCAI) for assessing culture and Meyer and Allen Organisational Commitment Instrument (OCI) for assessing employee commitment were used. The organisational culture and the employee commitment were measured on a five point Likert type scale. Percentile, mean score and Spearman rank correlation methods were employed to analyse the data collected. The results show that there is a significant correlation between organisational culture and job satisfaction and commitment of construction workers. Both job satisfaction and employee commitment equally show significant relationship. The relationships have implications for important organisational outcomes in Nigerian Construction Companies (NCC) in terms of job satisfaction and employee commitment and the ultimate performance of the Construction Companies.*

Key words: *Construction companies, employee commitment, job satisfaction, Nigeria, organisational culture*

I. Introduction

Man spends major part of his life in the organisation within which he works. When people join an organisation, they are taught the values, beliefs and expected behaviours and procedures for doing things in that organisation. Just as the society moulds human behaviour, an organisation also moulds the behaviour of their workers. In this process, certain basic attitudes and beliefs about the organisation are slowly but steadfastly accepted by the workers which eventually become the culture of the organisation. Organisational culture influences construction business processes as well as attitudes to work and job satisfaction and commitment of the workers such that performance is also influenced. Success is achieved through it by escalating the level of workers' commitment (Rashid et al [1]). Also satisfaction, quality perception and safety could be instilled in the workers through its power [1]. Successful implementation of the organisational policies and plans has been arguably linked to the level of workers' commitment.

Zhang and Liu [2] argued that organisational culture is an intangible force believed to play a tangible role in affecting the competitiveness, development and ultimate survival of an organisation. It was also believed that the ability of organisations to successfully respond to changing business environment depends on it. This evidence has important implications for the management of construction organisations who are the drivers of the organisations. If the organisational culture in a construction organisation is not well accepted by the employees, there will be low job satisfaction and commitment. Research on organisational culture especially in the construction industry is limited (Ankrah [3]). This seems not only to be the case in Nigeria, it also appears that not much work has been done to unravel the relationship between organisational culture, job satisfaction and employee commitment. Since culture appears to have profound impact on job satisfaction and commitment, it could be an antithesis to poor performance problem of the construction industry.

From the foregoing, there appears to be a relationship among organisational culture, job satisfaction and employee commitment. As a result, there is need to know how the various dimensions of the three constructs interact in order to enable construction companies harness the potential of culture to foster job satisfaction and commitment of workers in order to improve on performance. It is pertinent to state that this investigation was prompted by the literature evidence that has emphasised the importance of organisational culture, job satisfaction and employee commitment, and the fact that there appears to be no Nigerian research of the relationship among these concepts. Hence this research study attempts to determine the relationship among the variables of the three constructs. Consequently, answers are sought to the following questions.
1. What are the various types of organisational culture exhibited by the Nigerian Construction Companies?
2. Is there any significant relationship between organisational culture and job satisafaction?
3. Is there any significant relationship between organisational culture and employee commitment?
4. What is the relationship between job satisfaction and employee commitment?

This research could clarify the association between the different types of culture, job satisfaction and

employees' commitment in construction organisations. The result will have practical implications for the management of construction companies and consultants in management development as it could enhance their services. Additionally it will also provide significant contribution in better understanding the nature and type of organisational culture, employee commitment and job satisfaction of construction workers in the Nigerian context as a developing country presumed to be a nation where things work differently. More so as occupational culture of the construction industry is likely to be different in different countries (Ofori and Toor [4]). It is therefore important for the management of construction organisations to identify employees' commitment pattern and use organisational culture to map out strategies for enhancing those commitment patterns relevant to the goals and aspirations of the organisation. Therefore, the purpose of this study is to investigate the relationship between organisational culture and job satisfaction and commitment of the Nigerian Regular Construction Workers (NRCW). An evaluation of organisational culture in this study is therefore based on the most important and prevalent dimensions identified from literature.

II.   Literature review

2.1 The Perceptions and definition of Culture

Culture consists of the values or the ideals the members of a given group hold, the norms or the rules they follow and the material goods they create. It refers to the whole way of life of the members of a society. In its simplest form, culture is what an organisation is and what it does. Culture manifests in a number of ways such as ceremonies or formal procedures or practices (Mead [5]; Low & Leong, [6]; Mallak et al. [7]). Culture also has several properties (Barthorpe et al. [8]) that are peculiar to it and are observable. It is shared, learned, symbolic, transmitted cross generationally, adaptive and integrated and not biologically inherited (Bodley [9])

Organisational culture has no universally agreed definition but has been defined in many ways by various authors and researchers at various times. However, many of them tend to agree that organisational culture may be regarded as a set of values, beliefs, and behavior patterns that form the core identity of organisations, and help in shaping the employees' behavior (Deal and Kennedy [10]). Viewed differently, Schein [11] argued that organisational culture is a pattern of basic assumptions invented, discovered or developed by a given group as it learns to cope with its problem of external adaptation and internal integration. The positive and functional values so invented, discovered or developed throughout its history are then taught to new members in the organisation as the correct way to think, feel and act in their daily discharge of their duties. Therefore culture can be said to be the blue print or structure and control system to generate behavioural standards.

2.2 Role of Organisational Culture

Organisational culture brings about internal integration and coordination (Furnham [12]; Martins [13]). It defines amongst other things mode of communication, attitudes, beliefs, values and goals (Oladapo [14]). It also enhances the success of major initiatives such as mergers, reorganizations, attitude change programmes and Total Quality Management (TQM) (Bath Consultancy Group [15]; Abdul-Rahman et al [16]). Organisational culture also determines the level of maturity of the business of the organisation (Abiola-Falemu [17]). It can equally be used to enhance improvement to organisational effectiveness (Fitz-enz [18]).

In terms of performance, culture could enhance the level of employees' commitment and it is a key to the success of an organisation ([1]; Sashkin [19]). But certain types of culture could enhance performance than others (Denison [20]). Companies which put emphasis in key managerial components, such as customers, stakeholders, employees and leadership, outperform those that do not have these cultural traits (Kotter [21]). This is true when the right type of commitment of the employees is cultivated through the satisfaction of the employees. Without commitment, organisational culture alone cannot significantly enhance performance. In other words performance is enhanced when the type of organisational culture in practice is compatible with the type of employee commitment. Hence employee commitment is an essential ingredient for ensuring the successful implementation of the organisational policies and plans and thereby enhancing performance.

2.3 Types of Organisational Culture

Four types of organisational culture as classified by Berrio [22] commonly feature in the literature. These are the people, task, power and role culture all of which have other complementary nomenclature. People culture is a family type of organisation where concern for people with a high level of commitment among its members reign with emphasizes on individual development, morale, teamwork participation, and consensus (Cameron [23]). Task culture refers to a non permanent organisation structured to solve a particular issue and is disbanded once the issue or task is completed (Hodge [24]). Task culture is characterised by high degree of flexibility with creativity and risk taking as key values. Power culture tends to view the external environment as threatening, and seeks to identify threats and opportunities as it seeks competitive advantage and profits [23]. It focuses on external maintenance rather than internal issues. The role culture is a traditional "command and

control" model of organisations that focuses on the need for stability and control with tradition, consistency, cooperation, conformity and control over flexibility and discretion as its values.

2.4 Employee Satisfaction

Job satisfaction is defined as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Locke [25]). Sergeant & Frenkel [26] notes that employee satisfaction is fostered by effective support services and policies that assist employees in discharging their duties. According to Charmine [27], literature shows that a strong emotional link between workers can increase employee satisfaction. Turner et al [28] argued that many issues can influence employee satisfaction, including perceived pay equity, teamwork, and the quality of supervision. Research has proved that job satisfaction does not happen in isolation. It depends on organisational variables such as structure, size, pay, working conditions and leadership (Sempane et al [29]). In addition, supportive supervisors, teams and technology are important for the enhancement of employee satisfaction and commitment [26]. Further, the literature suggests that job satisfaction is associated with higher profitability and productivity (Koh and Boo [30]).

2.5 Employee Commitment

Organisational culture can be used to promote the achievement of job satisfaction and employee commitment. Commitment is an attitudinal issue reflecting an employee's loyalty to the organisation and its continued success and well being (Northcraft & Neale [31]). Employees' commitment is a multidimensional work attitude and has three aspects (Meyer & Allen [32]; Meyer et al [33]; Meyer [34]). The three aspects are affective commitment or desire-based, normative commitment or obligation-based, and continuance commitment or cost-based. Commitment is determined by three major factors which are personal, organisational and non-organisational. The personal factors are job position, marital status, and length of service (Tsui [35]) including age, tenure in the organisation, disposition, internal or external control attributions. The organisational factors include job design and the leadership style and non-organisational factors relate to availability of alternatives in the job market [31].

Affective commitment motivates employees to higher levels of performance than continuance or normative commitment and it measures employees' commitment more effectively [32], [34]. Anecdotal evidence shows that dissatisfaction with the culture of an organisation impacts negatively on employees' commitment. Hence there must be compatibility between organisational culture and employees' commitment. Therefore each aspect of commitment must be compatible with the type of extant organisational culture. When employee is committed, optimal organisational and individual performance occurs and individual employee satisfaction increases (Fornes et al [36]). When employees are not committed distress within the organization leads to organizational performance problems and low-performing workers. Committed employees offer a number of competitive advantages to the organisation which ultimately impact on the all round health of the organisation. Consequently, for the construction industry to improve its performance, changes are required in the area of organisational culture, job satisfaction and employee commitment among other attributes (Egan [37]).

2.6 Hypotheses

From the foregoing, the following research hypotheses have been formulated regarding the relationship in order to allow empirical testing of the relationship among the variables.

$H_{01.}$ There is no significant relationship between organisational culture variables and the job satisfaction variables.

$H_{02.}$ There is no significant association between organisational culture variables and employees' commitment variables.

$H_{03.}$ There is no significant relationship between types of organisational culture and forms of employee commitment.

$H_{04.}$ There is no correlation between job satisfaction variables and employee commitment variables.

III.   Methodology

3.1 Frameworks for measuring culture

The Competing Values Frameworks was found to be most suitable for assessing the organisational culture due to its universal applicability and earlier usage in related studies in the industry. The frame work analyses the diverse indicators of performance and emphasises the organisational culture variables considered germane. These variables are organisational leadership, dominant characteristics, organisational glue, strategic emphasis, criteria for success, and style of management of the employees. Additionally an instrument (organisational culture assessment instrument-OCAI) for measuring organisational culture was also developed along with the framework. This was found handy for use to gather the data used for the analysis. The

Organisational culture was measured on a five point Likert type scale ranging from strongly agree with a score of (5) to indicate positive statements to strongly disagree with a score of (1) to indicate negative statements.

As for the employees' commitment, Meyer and Allen [38] Organisational Commitment Instrument-OCI questionnaire was adapted and used to assess employees' commitment. The measurement was also based on a five point Likert type scale. A questionnaire also based on Likert type scale was also used for employee satisfaction. Analysis of the relationship and testing of the hypotheses were based on Spearman correlation method. Percentage and Mean score were used for other analysis. Out of 176 questionnaires sent out, 131 representing 74.43% was returned which is quite reasonable.

IV. Results and Discussion

Table 1 indicates the profile of the companies. It shows that the types of contracting business in the Nigerian construction industry cut across six categories with Building and Civil engineering construction (41.98%) in the lead while Steel construction (1.53%) appears to take the rear due to its specialised nature. In terms of business structure, private limited companies (40%) dominate the construction landscape with partnership (23.8%) next to it. The cooperative type of business structure (1.5%) seems to be uncommon. The ownership structure of these companies with regards to shareholding is biased in favour of Nigerians (70%) suggesting that most of the companies are possibly indigenised. Indigenisation could possibly influence the way the companies are managed which in turn could impact on job satisfaction and commitment.

Most of the companies seemed to have been evolved between 2000 and 2005 as greater percentage (36.6%) had their age between 5-10 years as at 2010. Political consideration could be responsible for the large number of companies that were formed at this period as the Nigerian democracy was barely two years old when this group of companies started springing up. Next in population size are those companies that were established over 25 years ago (21.4%). This category of companies must have passed through several stages of learning and unlearning and must have acquired a lot of experience in the industry over the years. The remaining 42% of the companies fell into different age groups spanning between 11 and 25 years. In sum, these companies are matured enough to have developed and sustained well defined culture that could have impact on job satisfaction and employee commitment and invariably on performance. The age range is in agreement with the findings of Wilson [39] that a minimum of five (5) years is required to achieve a self-sustaining organisational culture.

In respect of the employee-related size of the companies, small-sized companies (1-50 workers) constituting 51.2% are the commonest followed by the medium-sized companies (51-300 workers, 24.6%). Large-sized companies (above 300 workers, 19.2%) had the least population. It was considered that the employee-related size could inform the choice of type of organisational culture. Since culture is taught, learned, transmitted and imbibed and has maturity time frame, it means participation, regularity and consistency are important factors in passing across the cultural elements. Hence the need to know the proportion of casualised staff in order to determine the dependability of a response from each of the companies. Table 1 proves that majority (51.2%) of the companies had between 0-5% casual members of staff which means quite a large number of staff is a regular staff suggesting that their actions and conducts are governed by the culture of their organisations.

Table 1: Profile of the companies

Description	Number of respondents	Percentage (%)
Type of contracting business (N=131)		
Building construction only	29	22.14
Civil engineering construction only	11	8.40
Specialist services (M & E) only	21	16.03
Building and civil engineering construction only	55	41.98
General construction contracting only	13	9.92
Steel construction	2	1.53
Type of business structure (N=130)		
Sole proprietorship	24	18.5
Partnership	31	23.8
Public limited	17	13.1
Private limited	52	40.0
Cooperative	2	1.5
Statutory	4	3.1
Type of ownership structure (N=130)		
Wholly Foreign	13	10.0
Wholly Nigerian	91	70.0
More than 50% Foreign owned	13	10.0
More than 50% Nigerian owned	13	10.0

Years of establishment (N=131)		
5 – 10 years	48	36.6
11 – 15 years	24	18.3
16 – 20 years	23	17.6
21 – 25 years	8	6.1
More than 25 years	28	21.4
Number of employees (N=130)		
1 – 50 workers	73	56.2
51 – 300 workers	32	24.6
More than 300 workers	25	19.2
Proportion of staff employed as casual (N=125)		
0 – 5%	64	51.2
6 – 10%	24	19.2
11 – 15%	12	9.6
16 – 20%	11	8.8
Above 20%	14	11.2
Turnover of company (N=119)		
Less than N200 million	57	47.9
201 – 300 million	21	17.65
301 – 400 million	9	7.56
401 – 500 million	10	8.40
Above 500 million	22	18.49

From Table 2, the respondents constituted 87.7% males and 12.3% females. This demonstrates that the construction industry is masculine in nature. Of the total respondents, 70.8% had normal marital status while the remaining 29.23% fell into the other four categories of marital status. Relatively large proportion (37.5%) of the respondents was at the middle management level. Those in corporate/top management level constituted 28.9% of the respondents. The balance of 32.6% belongs to the lower/executive management and supervising/non-managerial level. With this distribution, the responses cut across various job positions and marital status which give a balanced opinion and view of their job satisfaction and commitment.

The Table 2 also indicates that the respondents were educationally qualified with 74% not below bachelor degree. This suggests that they are competent to answer the questions and that their opinions could be relied upon. The respondents were also professionally qualified and affiliated with various professional bodies. The Engineers (43.4%) were in the majority. With respect to the years of experience in their current company and job, 64.1% had more than five (5) years of experience. This implies that the length of service was sufficient to have learnt and imbibed the culture of their work place and as such could be able to give reasonable and reliable answers to the questions.

Table 2: Respondents' profile

Description	Number of respondents	Percentage (%)
Gender (N=130)		
Male	114	87.7
Female	16	12.3
Marital status (N=130)		
Married	92	70.77
Single	35	26.92
Divorced	2	1.54
Separated	0	0.0
Widowed	1	0.77
Job position (N=128)		
Corporate/top management	37	28.9
Middle management	48	37.5
Lower/executive management	22	17.2
Supervising/non-managers	21	16.4
Educational qualifications (N=131)		
City & guilds or below	1	0.8
Diploma	33	25.2
Bachelor degree	50	38.1
Masters degree	47	35.9
Doctoral degree	0	0.0
Professional designation (N= 131)		
Architect	17	13.0

Builder	24	18.3
Engineers	45	34.4
Estate Surveyors	6	4.6
Quantity Surveyors	26	19.8
Others	13	9.9
Membership of professional bodies (N=128)		
Graduate membership	49	38.3
Corporate membership	74	57.8
Fellow	5	3.9
Registration with relevant/regulatory council (N=123)		
Yes	84	68.3
No	39	31.7
Years of experience in present company (N=131)		
Less than 5 years	47	35.9
5 – 10 years	53	40.4
11 – 15 years	11	8.4
16 – 20 years	14	10.7
21 – 25 years	4	3.1
Above 25 years	2	1.5

4.1 Types of Organisational Culture in Nigerian Construction Companies
4.1.1 Small-Sized Construction Companies (SSCC)

From Table 3, it can be seen that the SSCC are predominantly operating the task culture with a mean score of 3.85 while role culture appears to be subjugated among the small companies. This is because they are still growing and need simple structure to operate. They do not need to be bureaucratic. The CVF indicates that organisations operating a task culture greatly values the end result of growth and acquisition of resources. This is probably due to the need for expansion. Organisations operating this kind of culture encourage creativity and experimentation. The desire to achieve new and challenging vision is the motivating force that drives such an organisation. External positioning is their focus and innovativeness is assumed to be the key to their success. Such organisations are a dynamic, entrepreneurial and creative place to work. All the employees embrace innovation and risk-taking. A commitment to experimentation and thinking differently are the unifying force (Tharp [40]). It is therefore not unlikely that these are the features of the small-sized construction companies in Nigeria.

4.2 Medium-Sized Construction Companies (MSCC)

The highest mean score for the MSCC is 3.68 for role culture. Task culture has the least mean of 3.58. Therefore role culture is favoured among the medium-sized companies in Nigeria. The need to have formal laid down procedures to govern business conduct might have informed the choice of this type of organisational culture among the MSCC. It suggests that the MSCCs are formalised and structured. Stability, predictability and efficiency are their long term concerns. Rules and procedures are expected to be made to govern the behaviour of their employees as they expand. Emphasis is placed on creating a well-defined hierarchical structure where employees are given well-defined roles as well as provided with clear rules and policies which they are expected to follow. The managers in the companies are expected to be seen as good coordinators and organizers having efficiency at the back of their mind [40].

4.3 Large Sized Construction Companies (LSCC)

As for the LSCC, the highest mean score of 3.90 is for the power culture. This choice of power culture by the LSCC could be explained in the context of attainment of business development maturity level whereby they need to prospect and maintain customer relationships and put in place business development entrepreneurship throughout the organisation such that all employees accept responsibility to identify and champion new opportunities for further business growth. According to the CVF, organisations operating this type of culture greatly value the end result of productivity and efficiency (Buckner & Williams [41]). They also place emphases on producing as many services as possible. The attention of their management is directed at the bottom-line and profits. Such organisations employ planning and goal setting as the means of achieving the results. Goal and task clarification, direction, and decisiveness are the cultural values of such organisations. In this type of culture, the employees are assumed to respond normally when given instructions by a superior who administer rewards for work well done. The managers in this culture are demanding and hard-driving. The employees are motivated to increase productivity. They are equally competitive and goal-oriented. The focus of the management is on external maintenance with a need for stability and control. The emphasis on winning

unifies the organisation; and reputation and success are common concerns. Equally the organisation is competitive and success means market share and penetration [40].

Table 3: Mean score for the types of organisational culture based on size of companies

Types of organisational culture	Small sized companies (1-50 employees)			Medium sized companies (51-300 employees)			Large sized companies (above 300 employees)			Overall Mean	Overall rank
	N	Mean	Rank	N	Mean	Rank	N	Mean	Rank		
Power Culture	73	3.68	2	31	3.60	3	26	3.90	1	3.73	1
Task Culture	73	3.85	1	32	3.58	4	25	3.74	3	3.72	2
Role Culture	73	3.56	4	32	3.68	1	26	3.75	2	3.66	3
People Culture	73	3.59	3	32	3.64	2	25	3.65	4	3.63	4

4.4 Organisational Culture in the Nigerian Construction Industry (NCI)

On the whole power culture marginally appears to be the dominant type of organisational culture in the NCI with a mean score of 3.73 and closely following is the task culture with a mean score of 3.72. This means that most of the construction companies are either operating power culture or task culture. It suggests that they are oriented towards maximization of output as well as expansion and transformation. They are also competitive and goal oriented. People culture appears to be subjugated within the industry. This is probably because most of the construction companies are not disposed to having an organisational setting where their employees would work as a family. Human capital development which is one of the hallmarks of the people culture seems unattractive because of cheap and large pool of equally qualified and unemployed graduates in the labour market. The economic situation in the country lends ready excuse for the preference of this kind of culture to others. The level of unemployment in the economy is high thereby making the NCC not to be favourably disposed to long employee tenure.

4.5 Relationship between organisational culture variables and job satisfaction variables

The Table 4 indicates that "dominant characteristic" is weakly positively correlated with six (60%) of the ten job satisfaction variables (good working conditions and setting: $r = 0.223$, $p < 0.05$; trust and reliability: r = 0.233, $p < 0.001$; work interest: $r = 0.282$, $p < 0.001$; pay package: r = 0.313, $p < 0.001$; employee welfare and concern: $r = 0.316$, $p < 0.001$; welfare package/retirement benefits: r = 0. 373, $p < 0.001$). This means that the proportion of variance in common between" dominant characteristic" and each of the six variables ranges from 7.8% to 13.9%. The correlation between the other variables (security of employment, opportunities for personal development, availability of tools and resources for work and, equal treatment and justice) are not significant. This suggests that "dominant characteristic" is weak in influencing job satisfaction variables.

With the exception of "availability of tools and resources for work", all other (90%) of job satisfaction variables (work interest: $r = 0.180$, $p < 0.05$; equal treatment and justice: $r = 0.185$, $p < 0.05$; trust and reliability: $r = 0.254$, $p < 0.005$; opportunities for personal development: $r = 0.282$, $p = 0.001$; security of employment: $r = 0.282$, $p = 0.001$; pay package: $r = 0.292$, $p = 0.001$; employee welfare and concern: $r = 0.346$, $p < 0.001$; good working conditions: $r = 0.385$, $p < 0.001$; welfare package/retirement benefit: $r = 0.411$, $p < 0.001$) are positively related to "management of employees". This indicates that the range of variance in common between "management of employees" and nine variables is between 3.24% (0.18^2 x100) and 16.89% (0.411^2 x100). Apart from "welfare package/retirement benefit" with $r^2 = 0.1689$ (16.89%) which is moderately correlated with "management of employees" others are weakly correlated.

"Organisational glue" is generally positively and lowly correlated with eight (80%) of the job satisfaction variables with "availability of tools and resources for work"; and "equal treatment and justice" not having significant relationship with it. Similarly, "organisational leadership" is positively correlated with all but one (90%) of the job satisfaction variables. It does not have significant relationship with "equal treatment and justice". This is probably because of organisational hierarchy. The way senior employees will be treated by the leadership of an organisation will be different from the way junior ones will be treated. Equally, "strategic emphases" are positively correlated with all but one (90%) variable (pay package) of the job satisfaction. This implies that "strategic emphases" and pay package vary widely and there is no relationship between them. Excluding "opportunities for personal development" other variables (90%) are weakly and positively correlated with 'success criteria" This is probably because "opportunities for personal development" only benefit the employee.

4.5.1 Hypothesis H_{01}

Since no organisational culture variable correlates with less than 60% of the job satisfaction variables as shown in Table 4, therefore hypothesis H_{01} is rejected and alternative hypothesis H_{01A} is accepted that there is a significant relationship between organisational culture variables and job satisfaction variables.

Table 4: Results of Spearman correlation between Organisational culture and Job satisfaction variables

Variables	Work interest	Pay package	Welfare package and Retirement benefits	Security of employment	Opportunities for personal development	Employees welfare and concerns	Availability of tools and resources for work	Trust and reliability	Equal treatment and justice	Good working conditions and setting
Dominant	.282**	.313**	.373**	.145	.136	.316**	.155	.233**	.104	.223*
Management of employees	.180*	.292**	.411**	.282**	.282**	.346**	.161	.254**	.185*	.385**
Organisational	.199*	.196*	.278**	.214*	.334**	.245**	.149	.268**	.099	.387**
Organisational leadership	.260**	.238**	.352**	.310**	.326**	.348**	.262**	.304**	.168	.288**
Strategic emphases	.298**	.115	.289**	.293**	.295**	.333**	.297**	.241**	.231**	.386**
Success	.354**	.267**	.254**	.241**	.170	.331**	.303**	.316**	.199*	.228**

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

4.6 Correlation between organisational culture variables and employee commitment variables

Using Spearman correlation method, the associations between organisational culture and employee commitment variables are presented in Table 5. In general, all the dimensions of organisational culture and those of employees' commitment are significantly and positively correlated at $p < 0.01$ with the highest correlation coefficient ($r = 0.592$, $p = .000$) between "management of employees" and "motivation" and the lowest correlation coefficient ($r = 0.227$, $p = 0.009$) between "dominant characteristics/core values" and "marital status". This implies that as management becomes more concerned with the welfare of employees, the employees become more motivated to deliver their best. Equally as the dominant characteristics/core values are shared by majority of the employees and interpretation of what represent appropriate and inappropriate behaviour becomes more uniform, marital status which intrinsically fosters commitment is seen as appropriate social status that should be acquired. In general the variance in common ranges from 5.15% and 35.05%

The Table 5 also reveals that all the employees' commitment variables are highly positively correlated at $p < 0.001$ with "management of employees". However the coefficients are moderate. This is an indication that the way employees are managed could seriously impact on the commitment of the workers. "Organisational glue" has significant positive relationship with leadership, motivation, employee welfare, job position, length of service and marital status while organisational leadership is associated with management style, cooperation and communication, common values and vision and marital status. In general terms, the relationship between organisational culture and employee commitment variables is positively significant.

4.6.1 Hypothesis Ho_2

From the results shown in Table 5 all the organisational culture variables are positively correlated with all the employees' commitment variables. Therefore hypothesis Ho_2 is rejected while the alternative hypothesis Ho_{2A} is accepted. It can therefore be affirmed that there is a significant relationship between the dimensions of organisational culture and that of employees' commitment meaning that organisational culture and employees' commitment are related. This is in agreement with EMRL [42] which stated that organisational culture could be used to instill employee commitment. It is also in accord with [1] that it could enhance the level of employees' commitment since they are associated.

Table 5: Results of Spearman correlation between organisational culture and employees commitment variables

Variables	Dominant characteristics	Management of employees	Organisational glue	Organisational leadership	Strategic emphases	Success criteria
Leadership	.424**	.531**	.479**	.446**	.459**	.391**
Management style	.443**	.528**	.378**	.510**	.501**	.322**
Cooperation and communication	.402**	.495**	.383**	.536**	.446**	.365**
Relationships	.372**	.382**	.346**	.348**	.277**	.351**
Common values and vision	.518**	.540**	.473**	.518**	.451**	.494**
Motivation	.394**	**.592**	.574**	.566**	.491**	.481**
Training and development	.281**	.502**	.458**	.299**	.466**	.418**

Employees welfare and concerns	.330**	.559**	.545**	.292**	.339**	.403**
Job position	.361**	.574**	.516**	.318**	.399**	.303**
Length of service	.315**	.444**	.464**	.414**	.300**	.251**
Age and tenure	.273**	.473**	.387**	.270**	.403**	.315**
Marital status	**.227****	.401**	.419**	.403**	.331**	.318**

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

4.7 Types of organisational culture and forms employees' commitment

The Table 6 indicates that people culture is positively correlated with the three forms of commitment (affective: $r = 0.448$, $p < 0.001$; normative: $r = 0.373$, $p < 0.001$; continuance: $r = 0.216$, $p < 0.02$). This means that in people culture, all the forms of employees' commitment could be expected among the employees in the companies. However, "affective commitment" (desired-based type of commitment) could be more pervasive among the employees as it is more positively related to "people culture" than other forms of commitment. The highest correlation with the "affective commitment" is understandable since in "people culture" values like loyalty, mutual trust, teamwork and personal commitment could have affected the emotional commitment of the employees in the organisation. Hence their attachment with the organisation would be very high. This is partly in agreement with Rashid et al [1] that found affective commitment positively related to people culture but negatively related to the other two forms of commitment.

Task culture, power culture and role culture are all positively related to all the forms of commitment. However some are more positively related than others. In the task culture majority of the employees would exhibit affective commitment more than others (affective: $r = 0.522$, $p < 0.001$; normative: $r = 0.461$, $p < 0.001$; nontinuance: $r = 0.273$, $p < 0.002$). Commitment to innovation and development are the values in "task culture" and these could also have influenced their emotional attachment to the organisation. As for "power culture" continuance commitment is more positively related to it than the other two forms. This means that most of the employees would exhibit "continuance commitment" (cost-based type of commitment). Goal accomplishment and achievement are the values in the "power culture." These could have affected the employees' cost-based attachment to the organisation. In case of the "role culture", it is more positively related to "affective commitment" than "normative" and "continuance". The formal rules and policies being the values in "role culture" could be the reason for their being emotionally attached to the organisation. The types of organisational culture and the different forms of employees' commitment are all positively correlated as shown in Table 6.

Among the different types of organisational culture, some types are more correlated with each other than others. People culture is more positively related to "task culture" than others at $r = 0.674$, $p < 0.01$ but "task culture" is more positively related to "power culture" than the other two types at $r = 0.396$, $p < 0.01$. This implies that the proportion of variance in common between "people culture" and "task culture" is 45.43%. Similarly, there is a higher positive correlation between "people culture" and "role culture" at $r = 0.639$, $p < 0.01$. This indicates that the proportion of variance between the two types of culture is 40.83%. The implication is that one of the two types of culture that are highly correlated can be made dominant within the organisation by encouraging those practices that will bring about the pervasiveness of the culture elements which support its dominance while encouraging compatible form of commitment. It should be noted that this correlation does not imply causality because there could be a third variable affecting the relationship between the two variables in question. Equally, the correlation does not say which variable is causing the other one to change.

The correlation between the different forms of commitment can similarly be explained in the context of the explanation for the culture types. "Continuance commitment" and "normative commitment" are more positively correlated at $r = 0.489$, $p < 0.001$ than "affective commitment" and "continuance commitment" ($r = 0.228$, $p < 0.001$). In the same vein "affective" and "normative" have higher correlation at $r = 0.597$, $p < 0.001$ than "affective" and "continuance" ($r = 0.228$, $p < 0.001$)

Table 6: Spearman correlation between organisational culture and workers' commitment types

Variables	People culture	Task culture	Power culture	Role culture	Affective commitment	Normative commitment	Continuance commitment
People culture	1.000						
Task culture	.674**	1.000					
Power culture	.386**	.396**	1.000				
Role culture	.639**	.465**	.394**	1.000			
Affective commitment	.448**	.522**	.204*	.346**	1.000		
Normative commitment	.373**	.461**	.216*	.334**	.579**	1.000	
Continuance commitment	.216*	.273**	.263**	.175*	.228**	.489**	1.000

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

4.7.1 Hypothesis Ho₃

The foregoing demonstrates that relationships exist between types of organisational culture and forms of employee commitment. Therefore hypothesis Ho₃ is rejected while alternative hypothesis Ho₃A is accepted. Hence it can be affirmed that there is a significant relationship between types of organisational culture and forms of employee commitment and that the relationship is positive and significant at 0.01 and 0.05 levels.

4.8 Correlation between the Job satisfaction and employees commitment variables

The relationship between job satisfaction variables and commitment variables is shown in Table 7. The correlation coefficients range from 0.096 to 0.538 and virtually all the dimensions of employees' commitment and job satisfaction are significantly positively correlated. Training and development, employees' welfare and concerns, job position, length of service, age and tenure; and marital status do not have significant relationship with work interest. Also there is no significant correlation between availability of tools and resources for work as a dimension of job satisfaction and age and tenure as a dimension of commitment.

Similarly equal treatment and justice being dimension of job satisfaction does not have significant correlation with two dimensions of employees' commitment - age and tenure; and marital status. However, the results show that pay package, welfare package and retirement benefit, security of employment, opportunities for personal development, employees' welfare and concern; and good working conditions and environment are all positively related to all the dimensions of employees' commitment at 0.01 level of significant. Trust and reliability as a dimension of job satisfaction shows positive relationship with all of the dimensions of commitment at 0.01 and 0.05 levels of significant.

4.8.1 Hypothesis Ho₄

From the foregoing and Table 7, it can be seen that at least 90% of all the job satisfaction and commitment variables are positively correlated. Hence Ho₄ is rejected while an alternative Ho₄A is accepted meaning that there is a significant relationship between job satisfaction and employees' commitment variables. This indicates that job satisfaction and commitment to work are inseparable and interwoven with the resultant effect on performance.

Table 7: Spearman correlation between the job satisfaction and employees commitment variables

Variables	Work interest	Pay package	Welfare package and Retirement benefits	Security of employment	Opportunities for personal development	Employees welfare and concerns	Availability of tools and resources for work	Trust and reliability	Equal treatment and justice	Good working conditions and environment
Leadership	.206*	.305**	.306**	.299**	.307**	.254**	.299**	.296**	.220*	.321**
Management	.226*	.381**	.422**	.310**	.334**	.342**	.346**	.353**	.399**	.445**
Cooperation And	.195*	.315**	.401**	.302**	.327**	.387**	.213*	.252**	.240**	.439**
Relationships	.299**	.323**	.378**	.246**	.301**	.328**	.194*	.184*	.235**	.301**
Common	.219*	.267**.	.401**	.321**	.297**	.383**	.259**	.384**	.355**	.434**
Motivation	.248**	.251**	.443**	.446**	.426**	.486**	.313**	.374**	.305**	.417**
Training and	.122	.261**	.458**	.355**	.408**	.475**	.292**	.271**	.203*	.454**
Employees welfare	.132	.286**	.455**	.366**	.446**	.499**	.270**	.370**	.319**	.511**
Job position	.162	.360**	.538**	.444**	.516**	.502**	.348**	.441**	.342**	.466**
Length of	.172	.303**	.527**	.423**	.475**	.411**	.277**	.420**	.281**	.407**
Age and	.037	.261**	.496**	.450**	.361**	.426**	.153	.175*	.096	.368**

**Correlation is significant at 0.0l level (2-tailed)   *Correlation is significant at 0.05 level (2-tailed)

V.   Conclusion and Recommendations

5.1 Conclusion

This research has been able to establish that private limited companies are the dominant type of business structure and that their ownership is mostly Nigerians. Majority of these companies are small-sized aged above five years while large-sized companies are in the minority. Building and Civil Engineering construction is the leading construction business undertaken by these companies

The Nigerian construction companies have different organisational cultures with little or no significant variation in their level of adoption and as such there seems to be no dominant culture in the industry. However, certain type of organisational culture is peculiar to certain size of company. Task culture appears to be the most

common in small-sized companies while role culture seems to be what can be mostly found in the medium-sized companies. The large construction companies appear to cherish power culture above the other types. Overall, power culture appears to be the preferred type of organisational culture that can be found in the construction industry in Nigeria. This suggests that the construction companies focus on external market rather than internal issues. They seek to identify threats and opportunities as they seek competitive advantage.

"Success criteria" are considered most important to the construction companies while "dominant characteristics" appear to be the least important. The operational efficiency in role culture, new and unique product/services in task culture and winning in the construction market including outpacing competition in the power culture depend on the criteria of success. This might be the reason why all the categories of companies attached the highest importance to success criteria.

In terms of employees' commitment, relationships appear to be highly important to the construction companies. This is probably because of the need for team work in the execution of construction projects. This is followed by length of service and marital status in descending order of degree of importance. Interestingly motivation, cooperation and communication, and leadership seemed to be less important to the companies contrary to literature evidence of the effects of these especially leadership style on employee commitment.

Equally the results indicate that significant relationship exist between the dimensions of organisational culture and that of employees' commitment. It equally indicates that there is significant relationship between the types of organisational culture and the forms of employees' commitment. However the strength of the relationship varies from one type of culture to another. In people, task and role cultures, affective commitment is more pervasive while in power culture, continuance commitment is more positively related and as such should be expected of the employees in construction companies operating this type of culture. In view of this, there is therefore significant evidence from the developing country perspective to attest to the relationship between organisational culture and employees' commitment.

5.2 Recommendations
In view of the findings above, a number of recommendations are put forward as follows:

1. This research has revealed a number of significant relationships between the dimensions of culture and employees' commitment which could be indicative of a causal effect of culture on commitment, although causality has not actually been established. To confirm and further validate these associations, future research in this field must endeavour to collect data from a bigger sample to increase the precision of the analysis and to enable firmer conclusions to be drawn.

2. The research context in which this study was done was limited to construction companies in Lagos. It is reasonable to think that there could be significant differences in the findings if this study is replicated in other similar cities in developing African countries. It will therefore be exciting and useful for benchmarking purposes to find out if differences do actually exist. This will allow for comparative analysis to be undertaken.

3. As construction companies make every effort for improved performance outcomes, it is recommended that construction managers give more attention and deploy more resources towards cultivating the right culture and employees' commitment within their organisations as some types of culture are more associated with some forms of commitment. This can be done through encouraging the appropriate cultural and commitment dimensions.

5.3 Areas for further research
Investigation should be conducted on the values placed by the construction companies on organisational culture, job satisfaction and employees' commitment so as to find out the extent to which they could affect performance.

5.4 Expected Contributions to Knowledge
This research hopes to make the following contributions to the body of existing knowledge on organisational culture, job satisfaction and employees' commitment:

1. The outcome of the research will enable construction organisations identify and institute the appropriate type of organisational culture compatible with the form of employees' commitment within their organisational setting.

2. The expected practical implication of the findings for construction managers is that it will provide information on how construction organisations can match their type of organisational culture with the type of employees' commitment being exhibited by the employees. It will also enable construction organisations categorise their employees into different forms of employees' commitment for future purpose of rationalisation in times of job scarcity and economic downturn.

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