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Evaluation of Organizational Culture of Construction Firms in Nigeria: A Case Study of Kano State

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Abstract:

The study evaluated the cultural features of construction firms in Kano state and determined the dominant culture of the construction firms in the study area, with a view to providing information that could enhance the organizational performance of Nigeria construction firms. Primary data were sourced through the administration of 60 structured questionnaires to 30 construction companies (i.e., two questionnaires per company) represented by their construction professionals and administrative staff, the data was analyzed using descriptive statistics, comprising of frequency, percentage, relative important index and mean. The information elicited from the returned 56 questionnaires (93.3% return rate) included features of organizational culture and dominant characteristic element of organizational culture of the construction companies The result showed a dominant organizational cultural feature of Adaptability explaining the variance in respondent's perception. However, organizational learning, involvement and reward orientation were also relevant. The organizational culture profile showed a predominant market culture (MC) with focus on production and goal accomplishment a hierarchy culture (HC) of a coordinator, organizer and efficiency expert and an ad hoc culture with strategic emphasis on dynamics and readiness the family type of culture is undermined within the firms. The study concluded that adaptability being a MC feature corroborates a predominant MC revealed by assessing organizational culture of construction companies in Kano state, Nigeria.

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1. Introduction

The organization must define and determine the type of culture manifested in it if it desires to succeed and achieve its goals. Scholars have indicated that organizational performance depends on how broad and strong the values of the culture shared in the organization are. This means that performance can be improved in the organization when its cultural values are homogeneous with the beliefs and values of its employees [1]. Besides, culture can be the source of failure or success of the organization [2].

The success of the organization depends on the appropriateness of the organization's culture to the competitive environment of the industry that it works in, and to what extent the organization culture is compatible with its long-term goals, style, and inclinations [3].

The construction industry is adjudged to be a major force in economic stabilization of countries. Its contribution includes employment, infrastructure development and gross domestic product, amongst others [4]. Contractors are the fore implementers of clients' brief statement. In developing countries such as Nigeria, governments are the major client because of the rising infrastructure deficit. Construction organizations in developing countries are challenged with ineffectiveness and inefficiency in its operation as far as projects and the running of these organizations are concerned. Most studies have focused on improving effectiveness and efficiency of projects whilst organizations' effectiveness and efficiency are yet to be delved into. Although, it can be argued that, the two are inseparable but the distinction between the two is permanent and changing environment for running the organization and project, respectively. Improving organizational effectiveness requires the realization and acknowledgement of the organization's identity. This identity becomes the basis of management decisions; the discovery of the identity can be done by knowing the profile of such organizations.

Fellows and Liu [5] opined that culture is a striking factor that transcends in all aspects of life and professions as well. Implying that the management of employees within the organization and the final physical infrastructure edifice broadcast the culture of the organization involved. Suggesting that, knowing the culture of an organization can led to forecasting its performance.

Furthermore, the globalization of the construction industry has resulted in alliances between foreign and Indigenous contractors. However, Fellows and Liu [5] asserted that arrangements in that regard are scanty. Notwithstanding that, Altinay and Brookes [6] pronounced those partnerships are influenced by similarities of culture between the organizations involved.

Moreover, many researchers have indicated that there is a correlation between organizational culture and commitment [7], performance or effectiveness in other jurisdictions. There is a documented profile of organizational culture in the construction industry of United Kingdom [8] and [9], Turkey [10] and [11], Australia [12], Indonesia [13], Nigeria [14 and 17], South Africa [18], China [19] and Malaysia [7], however, the Nigerian construction industry have few studies regarding to the organizational culture.

Organizational culture is a concept that has been given little attention in the construction industry compare to other industries. Organizational culture has a significant impact on the performance of any organization and its importance cannot be overemphasized [20]. Identity crisis has become a major source of inefficiency and ineffectiveness of individuals and organizations. One of the strategic ways for solving this crisis is through identifying the culture (personality) of organizations [21]

A lot of research studies in organizational theory have focused on developed countries like Australia Canada Germany China and India (95%), whereas only 5% of the studies are found to be carried out in developing countries such Nigeria, South Africa, Egypt, Ghana Correa and Cameron. Oney-Yazic, *et al.* [10] investigated the cultural features and profile of US construction companies and reported that the organizations are dominated by a strong clan culture (CC), which is relevant to internally focused organizations. In Nigeria, there is a dearth of studies on organizational culture of construction companies. Although Olanipekun, *et al.,* [14] studied the effects of organizational culture on the performance of quantity surveying firms in Nigeria using an assessment approach comprising dimensions suited to service organizations like quantity surveying firms. Sarki, *et al.* [15] and Sarki, *et al.* [16] review the organizational culture and identify the client culture for the construction industry. Therefore, Research on organizational culture especially in the construction industry is few. It is based on the aforementioned gap that this study is carrying out to assess the organizational culture of construction firms in Kano state in view to increasing organizational performance and yield in high production and its adoption in practice.

2. Literature review.

The construction industry is dynamic and fragmented, and stakeholders are constantly confronted with new organizations in a changing environment [22]. Understanding their organizational culture will enable firms to better manage their organization and prevent misunderstanding and conflict often due to cultural difference [23]. This could further enhance performance, quality and ensuring their long term-goal [17].

2.1 Culture

Culture has penetrated through the organizational studies. Culture studies have gained root within the last three decades and continues to make strides in management studies. The remarkable idea about the concept of culture is its indelible contribution to the well-being of organizations. From a lay person point of view culture is said to give a group of people an identity which is not technically different from O'dornell and Boyle [24] view regarding the importance of culture to the organization. Besides, realization of culture and its typologies informs management to be circumspect since every style adapted in the day-to-day running of the organization corresponds to different expectations. Oney-yezaici, *et al.* [10] added that, culture is not only instrumental to the effectiveness of the organization in the short-term but the long-term as well.

Awolesi and Fabi [20] proposed that, even partnership between organizations yields good outcome provided the entities involve have similar organizational culture. Furthermore, Organizational culture brings about internal integration and coordination. It defines amongst other things like mode of communication, attitudes, beliefs, values and goals. It also enhances the success of major initiatives such as mergers, reorganizations, attitude change programs and Total Quality Management (TQM). Abdulrahman, *et al.* [25]. Organizational culture also determines the level of maturity of the business of the organization.

Kulvinskienė and Šeimienė [26], It can equally be used to enhance improvement to organizational effectiveness. In terms of performance, culture could enhance the level of employees' commitment and it is a key to the success of an organization. But certain types of culture could enhance performance than others. Companies which put emphasis in key managerial components, such as customers, stakeholders, employees and leadership, outperform those that do not have these cultural traits.

This is true when the right type of commitment of the employees is cultivated through the satisfaction of the employees. Without commitment, organizational culture alone cannot significantly enhance performance. In other words, performance is enhanced when the type of organizational 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 organizational policies and plans and thereby enhancing performance [20].

Hoonakker [27] further stated that clients demand improved service quality, faster buildings and innovations in technology. Improving quality of construction is the easiest way to improve the industry. Culture is a complex issue that essentially includes all of a group's shared values, attitudes, beliefs, assumptions, artefacts, and behaviour, to the extent that members are not even aware they are influenced by it [28]. According to Harvey and Stensaker [29], being shared means that it is a social phenomenon that is learned and involves arbitrarily assigned, symbolic meanings. In this regard, culture is in-built in believes and values.

Typically, the construction industry has a culture, that is, shared understandings about what is expected, by all participants, in the way relationships are conducted between participants in the construction process [30]. It is not only the final product that is subject to criticisms but the processes, the parties, the materials etc., are under tremendous pressure for better quality in construction [31].

Quality may perhaps serve as a measure of client satisfaction, project and contractor's performance. Contractors often perceive total quality management as an extra cost, but they do not realize that it is not the quality that costs but rather the non-conformance to quality that is expensive Xiaoming and Junchen [32], O'Donnell and Boyle [24] postulated that a strong quality culture continuously delivers high quality products and services are an important prerequisite to sustained competitive advantage. Hence, rather than understanding culture and quality as independent entities, it is important to understand that quality actually stems from a broader cultural perspective [29].

2.2 Organizational culture

Recently, the organizational culture studies in construction sector increase significantly, this increasing as a result of internationalization of the construction industry [10]. The nature of construction industry is being an industry whose firms come together as temporary organizations to deliver the construction projects (or products), the success of construction projects depends mainly on smooth coordination among the members in this temporary organizations [33]. The contractor team is divided into two categories:

a. Permanent employees,
b. Temporary employees according the project lifecycle,

The permanent employees are affected by the organizational culture. There exist small differences between the cultures of each project but the dominant culture is the culture of the organization which refers to the subcultures of company's managers and engineers [11].

2.3 Organization culture features

Organizational culture can be described by its aspect, features, dimensions, traits and elements. Scientists use different concepts that have the same meaning [34]. Features of organizational culture are used to assess organizational culture and to evaluate its relationship with organizational performance. Jung, *et al.* [34] identified prominent dimensional features by surveying a host of renowned instrument.

Security, trust in management, individual and organizational learning, organizational identity and characteristics, performance improvement activities, power, relationships (college or interdisciplinary), results, rewards, support, task structure, team approach and trust. Ginevičius and Vaitkūnaitė [35] analyzed 53 articles on the selection of characteristics of organizational culture and compiled a final list of 12 characteristics including: involvement, cooperation (collaboration), transmission of information, learning, care about clients, adaptability, strategic direction, reward and incentive system, system of control, communication, agreement, coordination and integration. These functions are divided into a hierarchical structure.

These include: achievement or accomplishment, attitude to change or creating change, employee development capacity, employee commitment or participation, evaluation of ethics, long-term customer orientation, goal clarity or orientation, innovation or risk-taking, job satisfaction or work.

These include the following: achievement or accomplishment, attitudes to change or creating change, employee development capability, employee commitment or participation, valuing of ethics, long-term customer focus, goal clarity or orientation, innovativeness or risk taking, job satisfaction.

2.4 Organizational culture framework

The Competing Values Framework (CVF) is used to assess OC through the way people think, their values and assumptions, and the ways they process information [36] CVF based on two major dimensions. The first dimension differentiates between criteria that emphasize flexibility, discretion and dynamism and that criteria which emphasize stability, order and control the second dimension (internal versus external), differentiates between the criteria that emphasize the internal orientation and integration from the criteria that focuses on external orientation and rivalry. The two dimensions create four quadrants, each one of them represent a basic organizational culture type which are:

a. Clan,
b. Adhocracy,
c. Market, and
d. Hierarchy.

The CVF with the two dimensions and the four quadrants represent the organizational culture types.

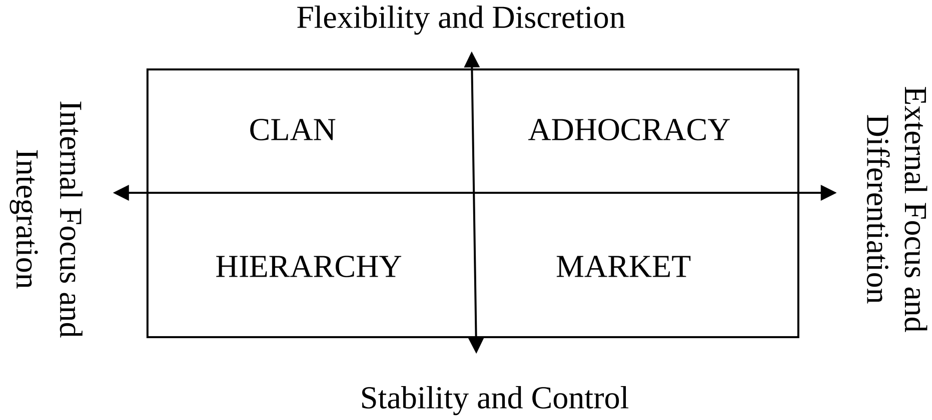

Figure 1. Typology of Organization Based on Competing Value Framework [37]

2.5 Organizational culture assessment

The Organizational Culture Assessment Tool assesses four culture types based on six different dimensions as follows: (i) Dominant Characteristics (Culture type), (ii) Organizational Leadership, (iii) Management of Employees, (iv) Organizational Glue, (v) Strategic Emphases and (vi) Criteria for Success. It was originally developed to understand organizational performance [38] and later applied to various organizational issues such as TQM [39] leadership development and leadership styles and finally. Organizational culture [37]. It includes four quadrants, each representing different indicators of organizational culture. Each quarter is given a distinctive label indicating it's most prominent cultural features, namely (1) clan or family, (2) adhocracy or ad hoc, (3) market and (4) Hierarchy

2.5.1 Clan or family

The clan culture type supports shared values, goals, cohesion, participation, teamwork, employee involvement and corporate commitment to employees. They seemed more like extended families than economic entities [40]. Yu and Wu, [41] defined the clan culture type as sharing of values and common goals, including teamwork and mutual help. The organizations that have the clan culture type as a dominant organizational culture type embrace team work and information sharing as a result, such organizations are very friendly workplace where individuals share and interact among themselves [18].

Furthermore, Yazic, *et al.* [42] stated that this type of organizations focuses on teamwork, employee involvement programs, and organization obligation to employees. This promotes employee commitment to the organization's visions and vice versa [38]. Albayrak and Albayrak [11] added that communication plays an important role in this culture. Clan culture is fashioned after the family system, where Atuahene and Baiden [21] employers are seen as parents and employees as the children. The absence of effective communication in a family breeds an environment for chaos. Effective communication in an organization contributes to the satisfaction of both employers and employees because it helps employers to sell their vision to the employees, solving internal conflicts and addressing employees' challenges. The ideas of the clan and market culture are practically the same but the recipient differs as the clan relationship is geared towards employees, the market culture is towards customers

2.5.2 Adhocracy culture

The adhocracy culture type focuses on adaptability, readiness and expansion [18]. According to Yazic, *et al.* [42], the adhocracy culture is comparable to a new and temporary organization that dismembers anytime organization duties are finished, and reconvenes quickly whenever new duties arise.

According to Cameron and Quinn [40], this manner of OC demonstrates the ability of an organization to be adaptable and innovative. Nummelin, [43] pointed that the adhocracy culture type basically founded in young organizations where the surrounding organization's environment led the organization to be flexible in their actions that motivate the organization employees to be innovative and creative. Similarly, Yazic, *et al.* [42] pointed that the adhocracy culture exists in organizations that have innovation and dynamic characteristics where the major goal is to adopt adaptability, flexibility and creativity; Cameron and Quinn [40] opined that this culture can be interpreted to mean a temporal way of operating an organization because the fundamental word is ad hoc. The influence of the business environment calls for making things flexible and informal in organizations. For instance, the construction industry over the decades has transformed from a technical field to a business-oriented industry. This can be realized from the curricular of construction universities across the globe. Business-related studies and legal studies have found its way into technical education such as construction. Worrall [9] opined that adhocracy forms the basis of cultural change in organizations due to its adaptive power to the external environment. This does not suggest that an organization will compromise on anything but things which aim at providing it with competitive edge or advantage over others.

Cameron *et al.,* [40] indicated that the effectiveness of adhocracy is seen in the organizations' craving for innovation. This actually should be identified with the construction organization since business management concepts and other sustainable concepts are emerging in the industry.

2.5.3 Market culture

The term market used for this culture is very figurative, not necessarily the physical description of market was buying and selling takes place. A fundamental principle in organizational management is maximizing profit and optimizing cost of production. In this era of aggressive business environment, the cutting edge of organizations is its ability to compete sustainably in business According to Yu and Wu [41], the market culture focuses on the transactions in the business environment of an organization as alternative to the inner operations. Hence, the aim of the market culture is to enhance the competitiveness in business and to achieve maximum profit. Similarly, according to Rameezdeen & Gunarathna [44], the market culture type emphasizes on the maximization of output, goal clarification, providing direction of what needs to be done to ensure competitive orientation towards competitors. In corroboration, Nummelin, [43] pointed that the market culture is externally oriented and the main values are profitability, market shares, competitiveness and productivity; Cameron and Quinn [40] posited that market is oriented towards the external environment. Albayrak and Albayrak [11] reiterated that as the organization is focused on its competitive bid, customers should be the central focus. Without customers, organizations will fail in achieving their goals and competitive edge.

2.5.4 Hierarchy culture

The hierarchy culture emphasizes on clear organizational structure, standardized rules and procedures, strict control, and well-defined responsibilities [41], which helps all members of an organization to determine what to do or embark on [45]. Still, the support of the leadership in an organization is required to ensure effective hierarchy culture [46]. Under hierarchy culture, the long-term attributes for an organization are stability, predictability and efficiency [40, 42]. According to Nummelin [43], the hierarchy culture exists mainly in public sector and old organizations that are more stable and consistent. Cameron and Quinn [40] theorized that such structures enhance stability, consistency, efficiency and predictability in an organization. Whenever well-stipulated rules, order of reporting and line of authority exist in an organization, the operation or product might not differ or slightly differ from each production. This enhances internal stability and consistent products or services offered by the organization. Moreover, new entrants easily adapt to the operations of the organization.

3. Research methodology

The instrument for data collection in this paper is structure questionnaires. Data were gathered through purposive sampling as only construction professionals within the selected organizations were sampled. The data collected were used to assess the organizational culture of construction firms in Kano State, Nigeria. Ordinal scales were also used for ranking or rating data that normally uses integers in ascending or descending order. The numbers assigned to the Scale: 5= Very Significant, 4= Significant, 3= Undecided, 2= Insignificant, 1= Very Insignificant, do not indicate that the interval between scales is equal, nor do they indicate absolute quantities. They are merely numerical labels and Ordinal scale used for data measurement [42]. The aim of the paper is to assess and determined the features and profile of Kano state organizational culture of construction firms. The data collected were analyzed using the following: 1) Percentage and descriptive analysis 2) Relative Importance Index (RII) Percentage is one of many ways to express a dimensionless relation of two numbers (the other methods being ratios, described in our ratio calculator, and fractions). The Percentage formula = (Value/Total value) × 100

Sambasivan and Soon [47], the relative importance index methods (RII) are used to determine the effectiveness.

$$RII = \sum w\_([A][N]) \qquad (1)$$

Where:

W = The weighting given to each rank by the respondents ranges from 1 to 5
A = The highest weight (i.e. 5 in this case)
N = The total number of respondents

Stenbacka [48] defined a sample size as a representative number of respondents to include in a statistical sample. A sample is a small amount or proportion of total selected to represent the population hence it is impossible for researcher to reach and obtain information from each and every member either due to time or logistic reason. The sample size for this work is determine from the entire population using Yaro Yamane formula.

$$n = N / (1 + N \llbracket(e)\rrbracket ^2) \qquad (2)$$

Where:

N = total number of populations, n= sample size from finite population, N=total population; e = level of significance; and 1=constant.

Therefore,

$$n = {}^{64}/_{1 + 64(0.05)^2} = 56$$

giving a sample size of 56

4. Data analysis and discussion of results

This part consists of data analysis and discussion of results on, factors that help in assessing the of organization culture of construction firms. These factors were grouped into three groups. The first group is general information of respondents, the second group is organizational features related factors and the third group is organizational culture profile related factors.

4.1 General information of respondents

Table 1. Shows the broad information of respondent's educational qualification, profession, position and experiences. Result revealed that a majority of respondent professionals had Bachelor of Science (BSc) (f=25, 44.6%). This is followed by Masters (MBA/March/MSc) (f =20, 35.7 %) and HND (f=8, 14.3%), then PhD (f=3, 5.4%). Administrators/Sec responded most to the research (f = 26, 46.4%), then, Engineers (f = 10, 17.8%), Builders (f = 9, 16.1%), Quantity Surveyors (f=8, 14.3 %), Architects (f=3, 5.4%). Professional Administrators/Sec responded most to the research (f = 26, 46.4%), then, Chief Engineers (f = 10, 17.8%), follows by Builders (f = 9, 16.1%), Chief Quantity Surveyors and then (f = 8, 14.3 %), Senior Architects (f = 3, 5.4%). Four respondents (7.2%) have less than 5 years, twenty-five (44.6%) of the respondents have 5 to less than 10 years professional experience, 19 respondents (33.9%) have 10 to less than 15years, eight respondents (14.3%) have 15 to less than 10 years, whereas no respondent have more than 20 year's experiences. Most of the companies had been operating for 6–10 years (f = 45, 80.4%), followed by 20 years and above (f = 5, 8.9%), 0–5 years (f= 4, 7.1%), then 11- 19 years (f= 2, 3.6%).

4.2 Features of an organizational culture.

The results of this part of paper provide an indication of the relative importance index and rank of the groups. Table 2. Shows summary of ranking according to all respondents' responses.

Table 2. explained that Adaptability has the highest rank among the factors of 0.7857% fallowed by Organizational learning 0.7357%and Involvement 0.7072% reward orientation 0.7048% strategic direction 0.6926% and least factor is Agreement with 0.5993%.

Table 1: General information of respondents

	Frequency	Percentage
Educational Qualification		
PhD	3	5.4
MBA/M. Arch/MSc	20	35.7
B.Sc.	25	44.6
HND	8	14.3
Respondent's profession		
Architect	3	5.4
Quantity surveyor	8	14.3
Engineer	10	17.8
Builders	9	16.1
Administrators	26	46.4
Respondent's Position		
Senior Architect	3	5.4
Chief Qs	8	14.3
Engineer	10	17.8
Builder	9	16.1
Administrator/sec.	26	46.4
Number of years of professional experience		
From 1 to less than 5 years	4	7.2
From 5 to less than 10 years	25	44.6
From 10 to less than 15 years	19	33.9
From 15 to less than 20 years	8	14.3
More than 20 years	0	0.00
Year of company's operation		
0 to 5	4	7.1
6 to 10	45	80.4
11 to 19	2	3.6
20 years above	5	8.9

Table 2: RII and Rank for Main Factors for All Responses

Factors Group	N	Frequency of response					RII	Rank
		5	4	3	2	1		
Strategic direction	56	12	27	6	8	3	0.6926	5
Communication	56	31	21	1	2	1	0.6905	6
Adaptability	56	32	12	2	6	4	0.7857	1
Involvement	56	18	30	2	4	2	0.7072	3
Reward orientation	56	10	25	10	18	2	0.7048	4
Agreement	56	9	25	10	6	6	0.5993	9
Coordination and integration	56	2	25	7	2	10	0.6054	8
Organizational learning	56	20	20	11	5	0	0.7357	2
Confidence in leadership	56	30	12	4	2	10	0.6822	7

4.3 Organizational culture profile

Table 3. Shows that the average mean of four dimensions of organizational culture revealed that the dominant culture dominated the construction firms in Kano is strong market culture (MC) [0.6348] with focus on production and achievement orientation. Followed by hierarchy culture **(HC)** with [0.6036] and focuses on dependable, delivery and smooth scheduling of task. Then adhocracy culture **(AC)** [0.5326] and the least culture among the four dimension is clan culture (CC) with [0.4681] and focuses on sensitivity to customers concern for people. The result also revealed that according to the average mean score by each culture the ranking the market culture having to be the strongest culture and the clan culture be the weakest culture among the four dimensions.

Figure 1 shows a graphical representation of the average mean scores obtained in each of the four culture types in Kano construction firms as presented in Table 3.

Table 3: Ranking of factors for determining the predominant culture in construction firms.

Assessment criteria	CC Mean	AC Mean	M.C Mean	HC Mean
Organizational leadership	0.3261	0.4779	0.3456	0.7029
Management of employee	0.5217	0.6812	0.9872	0.4412
Organizational Glue	0.2426	0.5362	0.9570	0.6565
Strategic Emphasis	0.3551	0.5217	0.3426	0.4058
Criteria of success	0.8913	0.5442	0.5118	0.8116
Average mean of the four-dimensional culture	0.4681	0.5526	0.6348	0.6036

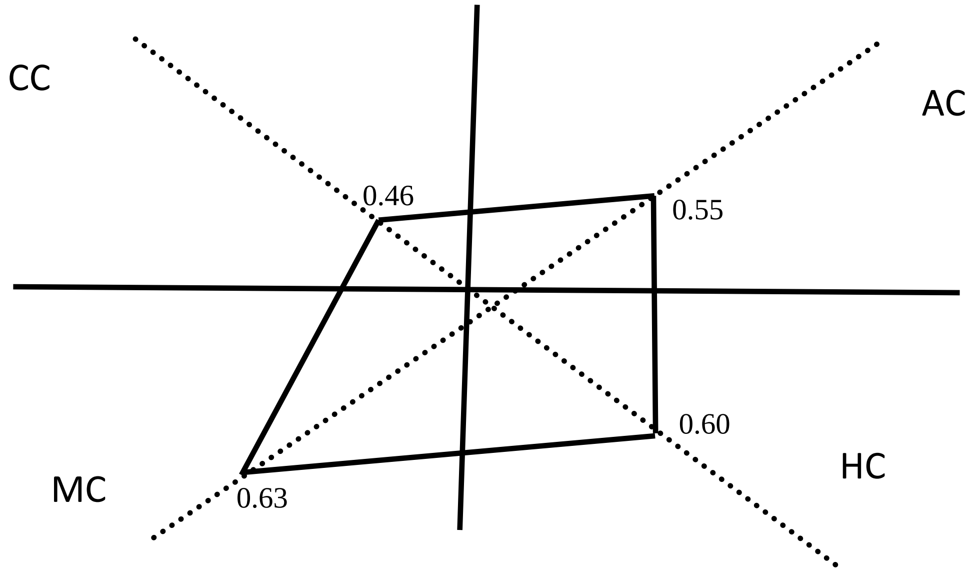

Figure 1. Graphical Representation of the Average Mean Scores for the four-dimensional culture

5. Conclusion

The paper concluded that there is a dominant organizational culture of strategic control in the construction companies of the research area (Kano). However, communication, adaptability and employee engagement are also important. These features indicated MC, HC, AC and Family or CC in that direction. This was confirmed by the organization. A cultural profile was drawn from accrued score using an assessment tool that also showed a predominant MC with a focus on production and goal achievement. Family culture in companies is weakening. This is in consistence with the similar study conducted by [49]. The construction firms in Kano state are differentiated from other firms by its features which comprises the nine features, strategic direction. Communication. Adaptability. Involvement. Reward orientation agreement coordination and integration organizational learning confidence in leadership are all relevant.

Recommendation

The paper recommends the construction companies in Kano State to create a rewarding atmosphere that nurtures family presence that is CC and subsequent collaboration between professionals.

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