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## The Effects of Corporate Culture on Firm Growth: Evidence from Tanzania's Construction Firms

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### ABSTRACT

*Corporate culture is one of those important aspects that determine the growth of firms. This study investigates the effects of the different types of corporate culture on the growth of Tanzania's local construction firms. A survey of 227 Tanzania's construction firms was undertaken using semi-structured questionnaire. The data collected were quantitatively analysed using Stata 13.0 software. The study results indicate that only the hierarchy type of corporate culture positively and significantly impacts the growth of Tanzania's construction firms. The other types of corporate culture, such as adhocracy, market, and clan had insignificant effects on the growth of the construction firms in Tanzania. The findings show that using the aggregated corporate culture construct is inappropriate in certain research contexts. Hence, the findings are useful in informing managers of Tanzania's construction firms about the significant effects of hierarchy culture on the growth of firms. This enables them to create a working environment focusing on structured and formatted procedures.*

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### INTRODUCTION

Corporate culture refers to a pattern of shared and stable beliefs of values within an organization or a company (Gordon & DiTomaso, 1992). It is also viewed as a unique system embodied in attitudes and behaviours that employees can adopt in dealing with the company's operation (Ankrah *et al.*, 2007). The literature further considers corporate culture as a value system that is agreed on and is followed by employees as a behavioural standard in an organisation that brings together people with the same objectives, beliefs, and values (Schein, 2004). Generally, there is no agreed universal definition of the corporate culture. In this study then, corporate culture is defined by adopting the definition by Guiso *et al.* (2015) and

O'Reilly and Chatman (1996) that "corporate culture is a set of norms and values that are widely shared and strongly held throughout the organisation". Also, the interchangeable use of corporate culture and organisational culture terms in this study is because they have the same definition (Schein, 2004; Barney, 1986). Corporate culture is considered one of the important components in sustaining a firm's performance, competitive advantage, and growth (Madu, 2012). This is possible as corporate culture allows an organisation's members to frame events in a similar fashion and provides the stability an organisation needs to survive (Martin, 2006). Uddin *et al.* (2013) indicated that corporate culture significantly influences employee performance and firm

productivity. Schein (2004) also uncovers that corporate culture may help employees learn an organisation's values and foster cohesiveness. Schein (2004) further indicates that a corporate culture that facilitates adaption to a changing environment is related to strong financial performance. According to Barney (1986), corporate culture plays a significant role in helping a firm sustain a competitive advantage that results in sustainable financial performance. Kotter and Heskett (1992) also indicate that firms with strong corporate cultures outperform those without such corporate cultures economically by a large margin. Ng and Kee (2013) also demonstrated that corporate culture leads to successful implementation and management of knowledge required in operating a company. Ojo (2010) found out that the firm's culture helps the growth of firms by creating employees' commitment to the company's goals.

However, several empirical findings indicate unclear effects of the corporate culture and its types on the growth of firms across sectors (Brettel *et al.*, 2015; Ilies and Gavrea, 2008). For example, Han and Verma (2012) demonstrated how clan and adhocracy cultures promoted financial performance, while hierarchy and market cultures were unrelated to the financial performance of the Korean firms studied. In their study among UK firms, Ogbonna and Harris (2000) also found contradicting results on the effects of corporate culture types on the performance of firms. Their study exhibited that only market and adhocracy cultures were directly related to the firm's performance, and the remaining two types of corporate cultures (i.e., clan and hierarchy cultures) were not directly associated with the performance of the firms studied. Yesil and Kaya (2013) indicated the lack of consistency in results regarding the relationship between the types of corporate culture and organisations' performance. Their findings revealed the lack of relationship between

the dimensions of corporate culture (hierarchy, market, clan, and adhocracy) and firm performance. In a study by Ohioyenoye and Eboime (2014), among Nigerian institutions, adhocracy and hierarchy cultures were the ones found to statistically relate to the growth of firms, whereas market and clan cultures demonstrated were not significantly related to the growth of the institutions surveyed.

These contradicting results call for further research on corporate culture's effects on firms' growth. Likewise, previous studies did not focus on the effects of corporate culture and its dimensions on the firm's growth, resulting in the lack of comprehensive findings on this important factor for the growth of Tanzania's firms. In this regard, the current study set out to investigate the types of corporate culture and their effect on the growth of firms.

Construction firms are of great interest in this study because they significantly contribute to the economy of Tanzania (United Republic of Tanzania, 2022). For example, from 2016 to 2020, the construction sector contributed to Tanzania's Gross Domestic Product (GDP) at an average of 12.98%. In the same period, the sector also recorded an average growth rate of 13.24% (United Republic of Tanzania, 2022). Another motive for this study is that Tanzania's construction firms surveyed in this study are privately owned. Thus, depending on their objectives and behaviour, they can nurture their own cultures according to their wish.

## LITERATURE REVIEW

### Corporate Culture and Firm's Growth

The literature indicates that corporate culture can influence the firm's growth in different ways, including enhancing the coordination and control within the firm (Sorensen, 2002). Corporate culture influences the firm's growth by helping employees to interact and engage with each other (Jacobs *et. al.*, 2013) and thus

improves the efficiency of information sharing (Cremer, 1993), motivating employees to commit to common goals and enhancing their bond with the firm and its developmental strategies (Sorensen, 2002; Kotter & Heskett, 1992). It provides a sense of ownership (attachment) of the firm, which acts as a driver for change and ensures the organisation's long-term success (Ng & Kee, 2013).

Corporate culture plays an important role in creating consistency in the behaviour of individuals in achieving a firm's goals (Sorensen, 2002). Corporate culture contributes to establishing structure and control within the organisation and can foster cohesiveness among employees (Schein, 2004). As Kotter and Heskett (1992) state, most businesses fail because management is quick to reshape firm strategies without reshaping the culture practised by the firm. However, it is difficult to effectively implement a new strategy without consideration of the existing corporate culture. This is because the skills and processes that suited the old strategy may not be appropriate for the new strategy. Therefore, it is important that any change within an organisation may work out effectively if the corporate culture values are considered effective (Ankrah et al., 2007; Hofstede, 2005).

According to Engelen (2010), corporate culture is a complex phenomenon normally illustrated through various dimensions. Cameron & Quinn (2006). Consider the corporate culture as extremely broad and inclusive in scope. As a result of its complexity and attributes, some authors (e.g., Cameron & Quinn, 2006; Kotter &

Heskett, 1992; Cameron & Ettington, 1988; Schein, 1984; Deal & Kennedy, 1982) have proposed a variety of corporate culture dimensions. However, finding a framework that includes every relevant factor in corporate assessment has been challenging due to its numerous dimensions. Be that as it may, the Competing Values Framework (CVF) was adopted in this study due to its reliability, objectivity and ability to integrate many of the dimensions proposed by other scholars (Cameron & Quinn, 2006). According to Oney-Yazic *et al.*, (2007), the model has the strength of accommodating several variables in measuring the organisational culture and predicting their effects on organisational performance. Livari & Husman (2007) agree that CVF is an appropriate tool for accommodating various types of cultures in an organisation. Likewise, Cameron and Quinn (1999) consider it a useful model for understanding various organisational and individual phenomena. It was, therefore, an ideal framework for investigating the effects of corporate culture on the growth of firms in Tanzania, focusing on various types of corporate cultures: clan, adhocracy, market, and hierarchy culture. Additionally, the CVF has been extensively used by researchers in studying organisational research and practice to forecast outcomes at the firms' level (Kwan & Walker, 2004; Walton & Dawson, 2001), which cements its reliability. Figure 1 provides an overview of the CVF by presenting the prominent features that describe each type of corporate culture.

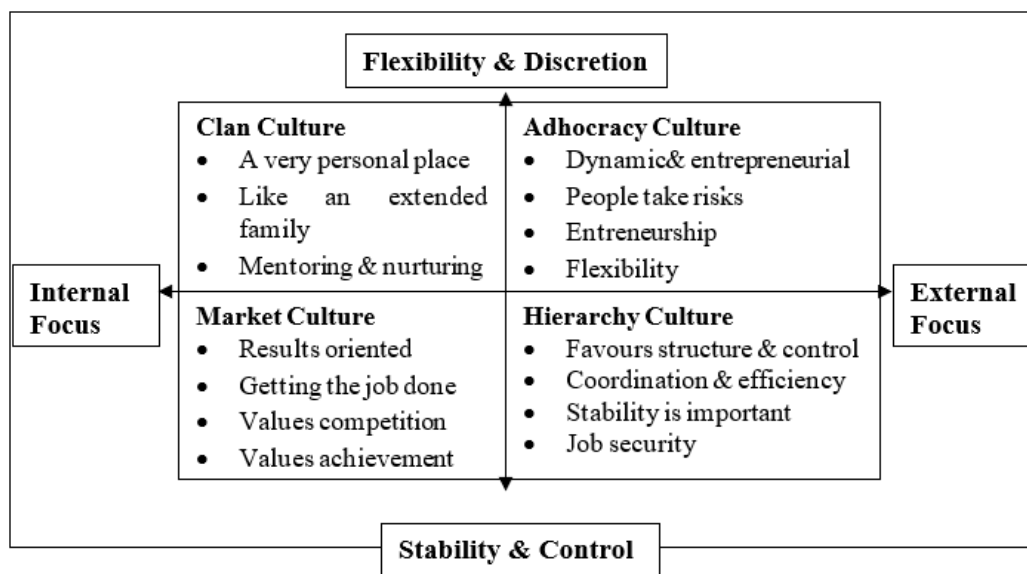


Figure 1: Organizational Culture Profile of Competing Values Framework (Source: Demir et al., 2011; Cameron & Quinn, 1999).

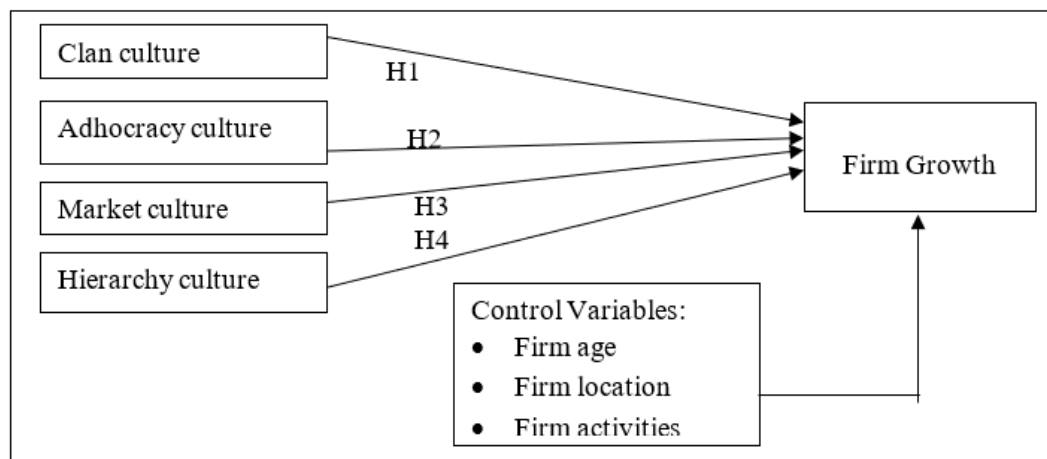


Figure 2: Overview of the Research Model (Author, 2021).

### The Research Model and Hypotheses Development

In investigating the effects of individual types of corporate culture on the growth of firms, the established CVF was used and linked with the growth of firms. This approach helped to analyse the direct link between the types of corporate culture and the growth of firms. Figure 2 presents a model of the relationships between the type of corporate culture and the firm's growth. The relationship is composed of three components. The first component of the model presents the dimensions of the corporate culture, while the second

component of the model presents the control variables used in this study. The third component of the model presents the firm growth, which is the dependent variable in this study.

As illustrated in Figure 2, there are four different types of corporate culture that differ in their contexts, and thus, are also expected to differ in their effects on the firm's growth. Cameron (1984) supports the assumption that the individual types of corporate culture affect an organisation's performance differently. In this regard, each type of corporate culture's effect on the firm's growth is discussed separately in the present study.

### **Clan Culture and the Firm's Growth**

Clan culture values openness, participation and discussion to get everyone involved in the activities and decisions of an organisation (Rameezdeen & Gunarathna, 2012; Cameron & Quinn, 1999). Members of the organisation that exercise clan culture have a concern for other members, and the organisation has a commitment to its members and their morale (Cameron & Quinn, 1999). Rewards are also given based on what a group has achieved for an organisation, not on how the individual members performed (Fralinger, 2007; Zaheer *et al.*, 2006). According to Tharp (2005), in an organisation where clan culture dominates, the organisation's interests overrule individuals' preferences. All the team members are committed to meeting the organisation's interests. Teamwork and information sharing among members characterise the clan culture from other types of corporate culture (Tharp, 2005; Cameron & Quinn, 1999).

Clan culture entails employees' commitment and loyalty (Livari & Huisman, 2007). The clan culture is also described by trust and participation among the different actors in an organisation (Brettel *et al.*, 2015). Clan culture promotes financial performance in the companies (Han & Verma, 2012) and dominates among large firms (Zhang & Li, 2013; Oney-Yazic *et al.*, 2007). In organisations, clan culture promotes trust, teamwork, knowledge sharing, confidence, expectation and collaboration among the employees, which are important ingredients in influencing the performance of organisations (Chen & Chen, 2007; Hampson & Kwok, 1997). Given that clan culture facilitates commitment and loyalty among the employees of an organisation (Brettel *et al.*, 2015) and promotes success in the organisation (Han & Verma, 2012), it was hypothesised that:

*H1: Clan culture is positively associated with the growth of the construction firm.*

### **Adhocracy Culture and the Firm's Growth**

Adhocracy culture emphasises the external support, resource acquisition, and growth obtained through insight, innovation, and adaptation (Tharp, 2005; Cameron & Quinn, 1999). According to Cameron and Quinn (1999), the adhocracy culture emphasises bringing new initiatives (innovation), the ability to take risks, and flexibility in acquiring resources from external providers to attain the goals of an organisation (Rameezdeen & Gunarathna, 2012; Cameron & Quinn, 1999). The core values of adhocracy culture include the commitment to development, innovation and risk-taking (Rameezdeen & Gunarathna, 2012; Cameron, 2008) with an emphasis towards organisational growth (Deshpande *et al.*, 1993). Adhocracy culture is also explained by embracing flexibility and creativity in the organisation (Cameron, 2008).

Adhocracy culture fosters entrepreneurial values and attitudes (Brettel *et al.*, 2015), which may significantly impact the growth of the firm (Rauch *et al.*, 2009; Krueger, 2005). Han and Verma (2012) indicate that the adhocracy culture promotes financial performance in companies due to its ability to enable the anticipation of future problems, needs or changes (Brettel *et al.*, 2015) and bring about creativity and innovation into the chain of the firm's operations (Cameron, 2008). In this regard, it was expected that the adhocracy culture would positively impact the growth of firms. This led to the formulation of the following hypothesis:

*H2: Adhocracy culture is positively associated with the growth of the construction firm*

### **Market Culture and the Growth of the Firm**

The market culture emphasises the maximisation of output and productivity. Employees are competitive

and goal-oriented, with a long-term focus on competitive action and achieving measurable goals and targets (Cameron, 2008). Market culture emphasises order efficiency, goal accomplishment, and efficient interactions with suppliers, customers, sub-contractors, and competitors (Tharp, 2005). According to Cameron and Quinn (1999), the competitive orientation towards rivals and emphasis on achievements distinguish the market culture from other types of corporate culture. In an organisation where market culture is practised, employees are competitive and goal-oriented (Zaheer *et al.*, 2006), and the rewards are given based on the individuals' performance rather than the performance of groups (Rameezdeen & Gunarathna, 2012; Fralinger, 2007). The strict goal orientation of the market culture has a major impact on the interaction between different departments within an organisation. It is considered a motive for the firm to achieve its goals in terms of performance and growth (Brettel *et al.*, 2015). As market culture insists on competition and achievement of measurable goals and targets (Zaheer *et al.*, 2006), which focus on deliverables, it was hypothesised that:

*H3: Market culture is positively associated with the growth of the construction firm.*

### **Hierarchy Culture and the Growth of the Firm**

The hierarchy culture focuses highly on structured and formatted procedures (Zaheer *et al.*, 2006). The hierarchy culture values a smooth-running organisation where people are given well-defined roles and expected to follow the rules and procedures developed to govern their actions (Maloney & Mark, 1991). As Fralinger (2007) exhibited, stability, performance, and efficient operations are the long-term goals of the hierarchy culture. According to Cameron and Quinn (1999), the major rewards for performance within the hierarchy culture are job security

and financial rewards based on seniority. The literature considers the hierarchy culture as a barrier to building trust and is likely to affect knowledge sharing among the employees of an organisation negatively (Brettel *et al.*, 2015). According to Kreiser *et al.* (2010), well-defined roles and procedures that govern employees' actions, which describe the hierarchy culture, tend to create less freedom and autonomy to make bold decisions. Therefore, it may hurt the growth of firms. Han (2012) also demonstrates that hierarchy culture does not directly affect the performance of the companies. Thus, as a result of the lack of a direct positive effect of the hierarchy culture on the firm's growth, as demonstrated in the literature, the following hypothesis was formulated and tested.

*H4: Hierarchy culture is negatively associated with the growth of the construction firm.*

### **Control Variables**

This study used the firm's age, location, and firm activities (industry) as control variables. These control variables were adopted because they are commonly used in business and organisational studies (Kraus *et al.*, 2012; Wiklund & Shepherd, 2005; Zahra & Garvis, 2000). The basis for considering these variables is that firms of different ages, activities, and locations may exhibit different organisational characteristics, which can influence their growth (Kraus *et al.*, 2012; Frank *et al.*, 2010; Rauch *et al.*, 2009; Wiklund & Shepherd, 2005). In this study, respondents were asked to provide the age and location of their companies, which were considered in interpreting findings. The firm's activities were also determined by asking respondents to indicate their firm's main line of business.

## **METHODOLOGY**

### **Sample Design and Scope of the Study**

The unit of analysis in this study was local Tanzania's building firms (contractors). By using systematic sampling technique, a sample of 338 contractors was selected from a population of 2854 firms (CRB, 2021). The selection of 338 firms was in line with the guidelines by Bartlett et al. (2001) and Krejcie and Morgan (1970). The names of firms were obtained from the database of the Contractors Registration Board (CRB) of Tanzania. The construction firms selected were those (a) dealing with building works in Tanzania, (b) commercially active in Tanzania in the year 2019, (c) commercially active in Tanzania in the year 2021, and (d) having valid contact details such as a mail address, a telephone number, etc.

### **Data Collection Procedures**

Data in this study were collected through face-to-face interviews using the adopted Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (1999). Questions used for data collection were adapted from Kessy (2010) and BMG Research (2013). The OCAI consists of six questions for each type of corporate culture (i.e., clan, adhocracy, market, and hierarchy). Questions were set to capture the dominant characteristics of the organisation, the behaviour of the organisational leader, the management style of the employees, the way of achieving the organisational glue, the strategic emphasis of the organisation, and the success criteria of the organisation. Questions were developed in English and then translated into the Kiswahili language, Tanzania's national language. The collection of data took place between July 2021 and September 2021. At the end of the data collection phase, 237 questionnaires were collected, 10 of which had incomplete information and were thus excluded from the analysis.

### **Measures**

#### **Corporate Culture Measures**

The study adopted the Organizational Culture Assessment Instrument (OCAI) to measure the types of corporate culture of the targeted construction firms of Tanzania. The types of culture employed in this study are from CVF. The CVF provides and explains the four types of corporate culture (i.e., clan, adhocracy, market, and hierarchy culture), which serve as the foundation of OCAI (Cameron & Quinn, 2006). In order to capture the required information for this study, respondents were asked to rate 24 items measuring types of corporate cultures on a 5-point Likert scale with a scoring system of 5=completely true, 4=mostly true, 3=true, 2=slightly true, and 1=never true. Each type of corporate culture was measured by six specific items. A 5-point Likert scale used in this study has also been extensively used in previous studies at the organisational level, which indicates its reliability (Schillo, 2011; Li et al., 2009; Hornsby et al., 2002). Using a 5-point Likert Scale was important because it has numeric values assigned to the response categories, allowing for statistical analysis (Kreiser et al., 2002). Likert scales also maintain the consistency of the data during the analysis.

#### **Firm's Growth Measures**

The firm's growth indicators are determined by research questions and the type of firms in the study sample (Kimberly, 1976). The growth of the firm can be measured through revenues, profits, investments (capital), market share, number of employees, sales, etc. (Ankrah *et al.*, 2007; Davidsson, 1991; Hansen & Wernerfelt, 1989). In this study, however, the firm's growth was measured using a change in the number of employees. This is because the number of employees is one of the indicators mostly used in empirical growth research in measuring the firm's growth (Krauss et al., 2005; Delmar et al., 2003). Another explanation for using the number of employees in measuring firm

growth is due to the labour-intensive nature of the construction industry (Adi & Wibowo, 2009). In Tanzania context, where there is minimal application of high technology in construction projects, a large number of employees in the construction companies tend to reflect the size of the companies as well as the number and value of projects it can execute (Adi & Wibowo; 2009; ILO, 2005).

The actual values of employees were obtained by considering absolute changes between the years 2009 and 2012. The use of absolute change was motivated by the fact that it normally measures change over a period of time, and hence, it allows the comparative ratio of the two numbers (Delmar *et al.*, 2003). In this case, the absolute change provides direct insight into the scale of employee differences between the two years (2009 and 2012) and informs the changes. Using absolute change helps researchers and practitioners understand the differences between two values. Absolute value is considered a transparent method of presenting information entailed in the two groups of data (Wilhelmi *et al.*, 2007).

### **Data Analysis**

The regression analysis was conducted to measure the relationship between individual types of corporate culture and the growth of local Tanzanian construction firms. A change in the number of employees was the response variable (dependent variable) in the regression model, representing the growth of Tanzania's local construction firms. The regression analysis helps to estimate the quantitative effect of the causal variables upon the variables that they influence (Sykes, 1993). The approach thus provides

readers with a good understanding of the impacts of corporate culture types on the growth of local Tanzania's construction firms. However, correlation analysis preceded regression analysis to establish the correlation between independent and control variables and the dependent variable of this study. All analyses were conducted using the Stata 13 statistical package.

## **EMPIRICAL RESULTS**

### **Reliability Test**

Correlation analysis was performed to confirm the internal consistency of the measures for the corporate culture. The results of the principal factor analysis suggest that all 24 specific items used in this study qualified to measure the four types of corporate culture among Tanzania's local construction firms. Cronbach's Alpha was then conducted for constructs validation in measuring the internal consistency of a test by informing the extent to which all the items in a test measure the same construct; and if the items in a test are correlated with each other, the value of Alpha increased is true and vice versa (Tavakol & Dennick, 2011). The results of the correlation tests and Cronbach's alpha tests conducted are provided in the following sub-sections.

### **Correlation Analysis**

The correlation analysis was conducted to measure how independent and control variables correlated with dependent variables, such as profitability growth and change in the number of employees in this study. Table 1 provides the results of the correlation analysis conducted.



**Table 1:** Correlation Analysis of Variables

|                      | 1       | 2       | 3       | 4       | 5      |
|----------------------|---------|---------|---------|---------|--------|
| 1. Employees growth  | 1.0000  |         |         |         |        |
| 2. Clan culture      | 0.2983* | 1.0000  |         |         |        |
| 3. Adhocracy culture | 0.3370* | 0.8037* | 1.0000  |         |        |
| 4. Market culture    | 0.2906* | 0.3211* | 0.4132* | 1.0000  |        |
| 5. Hierarchy culture | 0.3116* | 0.2474* | 0.3191* | 0.5506* | 1.0000 |

In measuring the correlation between independent variables and change in the number of employees as the dependent variable (Table 1), the analysis revealed that all types of corporate cultures (clan, adhocracy, market, and hierarchy culture) positively and significantly increased the number of employees in the construction firm in Tanzania ( $p < .05$ ). This indicates that the more the firm practices clan, adhocracy, market, and hierarchy culture, the more such a construction firm experiences a change in the number of its employees.

**Cronbach's Alpha**

Cronbach's Alpha was performed to determine the internal consistency of measures for the types of corporate culture (clan, adhocracy, market, and hierarchy). Results for Cronbach's Alpha levels for these types of corporate culture are as

follows: clan culture (0.8671), adhocracy culture (0.9497), market culture (0.8728), and hierarchy culture (0.7040). In this regard, all Cronbach's Alpha levels were sufficient because “levels above 0.70 are typically considered acceptable when conducting organisational research” (Kreiser *et al.*, 2002).

**Regression Analysis Results**

The multiple regression analysis investigated the relationship between the corporate culture and the growth of Tanzania's local construction firms. The results of the multiple regression analysis on the four types of corporate culture and their impacts on the growth of the three models are presented in Table 2 – also the firm's growth indicator used (i.e., the change in the number of employees).

**Table 2: Regression Analysis for the Employees' Increase**

| Variable          | Pred. Sign. | Model 1 |          | Model 2 |         | Model 3 |          |
|-------------------|-------------|---------|----------|---------|---------|---------|----------|
|                   |             | Coeff.  | p-value  | Coeff.  | p-value | Coeff.  | p-value  |
| Clan Culture      | +           |         |          | 4.964   | 0.410   | 3.733   | 0.489    |
| Adhocracy Culture | +           |         |          | 8.735   | 0.110   | .777    | 0.879    |
| Market Culture    | +           |         |          | 5.193   | 0.245   | -3.337  | 0.431    |
| Hierarchy Culture | -           |         |          | 13.298  | 0.012** | 12.558  | 0.009*** |
| Firm Age          |             | 1.045   | 0.791    |         |         | .369    | 0.925    |
| Firm Location     |             |         |          |         |         |         |          |
| 2                 |             | -       | 0.008*** |         |         | -       | 0.029**  |
| 3                 |             | 37.109  | 0.000*** |         |         | 30.923  | 0.000*** |
| 4                 |             | -       | 0.000*** |         |         | -       | 0.001*** |
| 5                 |             | 40.413  | 0.000*** |         |         | 38.587  | 0.000*** |
| 6                 |             | -       | 0.004*** |         |         | -       | 0.033**  |
| 7                 |             | 50.025  | 0.000*** |         |         | 40.627  | 0.000*** |

|                 |  |  |        |  |         |  |        |
|-----------------|--|--|--------|--|---------|--|--------|
|                 |  | -68.839                                    |        |  |         | -64.643                                    |        |
|                 |  | -55.096                                    |        |  |         | -42.449                                    |        |
|                 |  | -63.897                                    |        |  |         | -57.594                                    |        |
| Firm Activities |  |  |        |  |         |  |        |
| 2               |  | -5.541                                     | 0.648  |  |         | -7.025                                     | 0.559  |
| 3               |  | 1.350                                      | 0.870  |  |         | -1.887                                     | 0.819  |
| Constant        |  | 22.367                                     | 0.079* | 6.145                                      | 0.027** | 24.877                                     | 0.051* |
|                 |  | N=227, Adj. R <sup>2</sup> =0.3306, p<0.01 |        | N=227, Adj. R <sup>2</sup> =0.1525, p<0.01 |         | N=227, Adj. R <sup>2</sup> =0.3473, p<0.01 |        |

\*p<0.1. \*\*p<0.05, \*\*\*p<0.01.

Model 1 was regressed by comparing only control variables (firm activities, firm age, and firm location) against the dependent variable (an increase in the number of employees). Model 1 was regressed to establish the influence of the control variables on the growth of construction firms without involving the influence of independent variables on the dependent variable. As a result, the findings of the effects of independent variables on the growth of local construction firms are not included in Model 1, as indicated in Table 2. From the control variables used in model 1, the results reveal that only the firm's location is significant ( $p < 0.01$ ) related to the growth of local construction firms. This indicates a connection between a firm's location and the growth of the local construction firm in question. Thus, considering a location with many build-up projects is important to owners and managers of local construction firms. Other control variables, such as the firm's activities and age, were found to have no significant effects on the growth of local construction firms – as their p-values were larger than 0.05 at the 95% confidence interval (CI). This suggests that there is no connection between the growth of the local construction firm and the firm's age and activities.

Model 2 was regressed to test the effects of the types of corporate culture (independent variables) on the change in the number of employees (the dependent variable). Table

2 shows that the regression model is statistically significant at ( $p < 0.01$ ). With regard to the strength of individual types of corporate culture and control variables against the growth of local Tanzania's construction, only the hierarchy culture significantly and positively increased the growth of local Tanzania's construction firms. The result led to the rejection of H4. Further, contrary to how hypotheses H1, H2, and H3 were proposed, the regression analysis shows that the other three types of corporate culture (clan, market, and adhocracy) are only positively but not significantly predicting the growth of local Tanzania's construction firms. These results led to rejecting hypotheses H1, H2, and H3. In summary, Model 2 indicates that only the hierarchy culture is a good predictor of the growth of the local Tanzania's construction firm.

Model 3 was then regressed by considering both control and independent variables against the dependent variable. From Model 3 in Table 2, the results indicate that the adhocracy culture significantly and positively predicted the growth of the local construction firms studied. The results from Model 3 further demonstrated that the clan culture and the market culture did not significantly predict the growth of the local construction firm in Tanzania when the control variables (i.e., firm's age, firm's location, and firm's activities) were considered in the model.

In Table 2, the adjusted  $R^2$  for Model 1 is 0.3306, meaning that 33.06% of the variance in the growth of the local Tanzania's construction firm can be significantly explained by the three control variables (firm's age, location and activities). The adjusted  $R^2$  for Model 2 is 0.1525, which means that 15.25% of the variance in the growth of the local Tanzania's construction firm can be significantly explained by the four types of corporate culture (clan, market, adhocracy, and hierarchy). The adjusted  $R^2$  for Model 3 is 0.3473, implying that 34.73% of the variance in the growth of the local Tanzania's construction firm can be significantly explained by the three control variables and four independent variables (clan, market, adhocracy, and hierarchy), which are the types of corporate culture. According to Ozili (2023), Adjusted  $R^2$  between 0.10 and 0.50 (or between 10 per cent and 50 per cent when expressed in percentage) is acceptable in social science research. This demonstrates that the  $R^2$  coefficients for Model 1 (33.06%), Model 2 (15.52%), and Model 3 (34.73%) measured statistical significantly in the estimated regression line (Chicco et al., 2021).

## DISCUSSION

Despite the results for the three Models provided in Table 2, the explanation and discussions are based only on Model 2, which tested if there is a direct effect between the types of corporate culture and growth of the local Tanzania's construction firm, which is the objective of this study. The results of Model 2 suggest that only hierarchy culture has a positive and significant impact on the growth of local Tanzania's construction firms. The findings are consistent with other empirical findings (Ohiorenoya et al., 2014; Tseng, 2010; Ye et al., 2008). The positive relationship between hierarchy culture and the growth of Tanzania's local construction firms indicates that there is effective control of employees of the construction

companies of Tanzania during the implementation of construction projects (Yesil & Kaya, 2013; Tseng, 2010; Ye et al., 2008). Another explanation for the significant effects of the hierarchy culture on the growth of the firms studied could be that such firms are focused on structured and formatted procedures by placing emphasis on employees' abidance by procedures developed to guide their operations to the changing business environment, which translates into a firm's enhanced growth.

These findings, however, are contrary to the hypothesis of the study and other empirical studies that found a negative relationship between the hierarchical culture and the growth of firms (Brettel et al., 2015; Yesil & Kaya, 2013; Fekete & Bocskei, 2011; Kreiser et al., 2010; Deshpande & Farley, 2004; Ogbonna & Harris, 2000). The possible reason for this difference in the findings could be the nature of the firms studied. Some of the empirical findings that indicated a negative relationship between the hierarchy culture and growth of firms were conducted among firms from various sectors, while this study is solely focused on construction firms of Tanzania, which is labour intensive due to lack of high technology application in the construction industry of Tanzania. According to the Contractors Registration Board ([www.crb.org.tz](http://www.crb.org.tz)), large construction firms have a large number of employees due to the number and value of projects a firm needs to execute.

Further, from Model 2, clan culture had no significant effects on the growth of local Tanzania's construction firms. The finding is consistent with some studies (Yesil & Kaya, 2013; Tseng, 2010; Zheng et al., 2010; Deshpande & Farley, 2004; Ogbonna and Harris, 2000; Han et al., 1998). However, the finding is inconsistent with some previous studies, especially those conducted in developed countries. Most of the findings from these studies demonstrate a positive relationship between clan culture and the growth of organisations (Han,

2012; Fekete & Bocskei, 2011; Chen & Chen, 2007; Kadefors, 2004; Hampson & Kwok, 1997). This indicates that local Tanzania's construction firms lack trust, openness, teamwork and consensus among the employees themselves and between the employees and management at different stages of the firm's operations, which are the key features of the clan culture.

Furthermore, from Model 2, it was found that adhocracy culture had no significant effects on the growth of local Tanzania's construction firms. The finding is not consistent with the findings of some previous studies on the variables (Han & Verma, 2012; Fekete & Bocskei, 2011; Tseng, 2010; Rauch et al., 2009; Cameron, 2008; Krueger, 2005; Deshpande & Farley, 2004; Ogbonna & Harris, 2000). However, this finding is consistent with a few studies (Yesil & Kaya, 2013; Tseng, 2010; Zheng *et al.*, 2010; Han *et al.*, 1998), which indicated a negative relationship between adhocracy type of culture and firm performance. The findings indicate that the management of such firms did not exemplify entrepreneurial values such as innovation, proactiveness, risk-taking, freedom and uniqueness, which are the key features of the adhocracy culture (Brettel *et al.*, 2015; Cameron, 2008).

The fourth result from Model 2 shows that the market culture had no significant effects on the growth of local Tanzania's construction firms. The finding is consistent with other empirical studies (Yesil & Kaya, 2013; Han & Verma, 2012; Tseng, 2010; Zheng *et al.*, 2010; Han *et al.*, 1998), which also found that the market culture had no direct link with organisational performance. However, this finding is inconsistent with the findings of most previous studies, which demonstrate a positive relationship between the market culture and the growth of organisations (Brettel *et al.*, 2015; Fekete & Bocskei, 2011; Cameron, 2008; Deshpande & Farley, 2004; Ogbonna & Harris, 2000). This result indicates that the competitiveness and achievement of

measurable goals and targets, the key features of market culture (Zaheer et al., 2006), are missing among the local Tanzanian construction firms.

Overall, the findings of this study revealed that the individual types of corporate culture had different effects on the growth of firms. As Model 2 in Table 2 provides, only the hierarchy culture seems to be a good predictor for the growth of the local Tanzania's construction firm. This indicates that the hierarchy culture has positive and significant effects on the growth of Tanzania's local construction firms. However, the study also established that clan, adhocracy, and market cultures did not affect the growth of local Tanzania's construction firms. These findings support the theoretical arguments that corporate culture and its dimensions affect organisational performance only through mediators like knowledge management, innovation, etc. (Tseng, 2010; Zheng *et al.*, 2010; Han *et al.*, 1998). Furthermore, the lack of effects of the three types of corporate culture (i.e., clan, adhocracy, and market culture) on the growth of local Tanzania's construction firms could be due to the ability of the firm to adapt to environmental change as provided by other scholars (Chatman *et al.*, 2013; Van den Steen, 2005; Sorensen, 2002).

## CONCLUSION

Overall, the analysis has indicated that the effect of corporate culture types on the firm's growth varies (with only the hierarchy culture measuring positively and significantly). The other three types of corporate culture (i.e., clan, adhocracy, and market culture) measured no effects on the growth of local Tanzania's construction firms. These results have reinforced the former findings on the same topic but have also revealed the need to consider the individual types of corporate culture instead of corporate culture as a single construct when measuring the effects of corporate culture on the growth of firms.

This is due to the inconsistencies and variations in the effects of corporate culture and its dimensions (types) on the growth of firms. Therefore, this study clarifies the effects of individual types of corporate culture on the growth of firms, particularly in the construction industry, by providing empirical evidence from the Tanzanian context.

This study contributes to the body of knowledge on corporate culture by indicating variations in the effects of individual types of corporate culture on the growth of firms. It adds knowledge on the effects of corporate culture on the growth of firms in Tanzania, particularly the construction firms of Tanzania. It also raises awareness on importance of corporate culture among managers of construction firms in Tanzania and other developing countries with similar cultural backgrounds on the effects of individual types of corporate culture on the growth of firms. This kind of information is necessary for construction firm managers when planning to implement a type of corporate culture in their operations. The positive impacts of hierarchy culture on the growth of firms may make managers of construction firms in Tanzania aware of the importance of creating a working environment that focuses on structured and formatted procedures.

This study limitation is that the current study only involved firms from Tanzania with relatively homogeneous cultural backgrounds. Hence, the findings cannot be generalised to other developing countries with different cultural backgrounds. It is therefore suggested that future studies focus on construction companies from other developing countries with diverse cultural backgrounds to confirm whether types of corporate culture have the same effects on the growth of construction firms, as revealed in this study. Another limitation of this study is on the external validity of the data, considering that the data on the types of corporate cultures and growth indicators were only collected by

interviewing the owners of local Tanzanian construction firms. It would be meaningful in the future to conduct empirical research by obtaining information from both owners and employees. Such information can help researchers and practitioners understand what employees think about a type of culture practised in their companies.

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