Influence of Organizational Culture and Innovation on Banks’ Performance: A Quantitative Approach

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Authors’ contributions
This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

ABSTRACT
The study examines the influence of organizational culture and innovation on banks’ performance with particular reference to the selected banks in Nigeria. Data were gathered using a self-administered questionnaire distributed to the 175 employees of Zenith bank, Guaranty bank, First bank United Bank for Africa, and Eco bank located in Ibadan metropolis. Pearson Moment correlation and regression model were used to analyse the data. The study established that organizational culture and innovation jointly and independently influence banks’ performance. It was also established that organizational culture has a direct and positive association with innovation. It was concluded that organizational culture and innovation are major strategies for the banking sector to wax stronger minds global competitive environment and COVID-19 syndrome. Therefore, Nigerian banks encourage their staff members to create innovative ideas and provide them the right reward to establish an innovative culture in the organization. This study practically provides a useful recommendation to the Nigerian banks on the significance of organizational culture and innovation and their contribution to performance.

Keywords: Organizational culture; innovation; banks; performance; competition.
1. INTRODUCTION

In today’s super-competitive business environment, combined with advanced pandemics, currency devaluation, and other macro challenges, the banking sector is placed under hard pressure. At the same time, policy measures to stabilize the financial system and increase loans to stimulate the production of goods and services have increased the pressure on banks. The CBN’s reduction of e-banking fees took effect in January 2020 to ensure consumer protection, as more people are included in the financial scope, which has a negative impact on bank fees and commission income [1]. Obviously, Komolafe [2] lamented the impact of the coronavirus pandemic (COVID19) and the devaluation of the naira, financial performance, and bank insolvency losses skyrocketed by 99% in the first quarter of 2020, resulting in a 29% drop in earnings. This situation forces banks to develop strategies such as organizational culture and innovation to protect the banking industry from the impact of the financial crisis.

In the past two decades, organizational culture has received extensive attention from various scholars and researchers because of its impact on organizational performance. Organizational culture in the banking system is a recently expressed concept that significantly influences the thinking and actions of managers and employees to achieve competitive advantage and performance levels [3, 4, 5]. The organizational culture aims to guide and shape the attitudes of employees towards work and their expected behaviors [6, 7]. Research shows that if employees are guided by the core values of the banking industry, their performance can improve [4, 5]. In addition to organizational culture, academia has recognized that innovation is one of the key factors to achieve organizational success and maintain competitive advantage. The literature fully proves that innovative organizations have greater flexibility and can quickly respond to changes to take advantage of business opportunities [3, 8]. Innovation is considered a competitive mechanism for organizational performance and success, and an important tool for adapting to the changing business environment [9, 10].

A plethora of studies has examined the influence of organizational culture and innovation independently on organizational performance in developed and developing nations [3, 4, 5, 11, 12, 13]. However, to the best knowledge of the researchers, no or little study jointly examines the influence of organizational culture and innovation on the performance of the banking sector in developing countries, particularly in the Nigerian banking sector. Therefore, current research aims to fill identified gaps in the literature by examining the impact of organizational culture and innovation on the performance of Nigerian banks.

1.1 Theoretical Framework

The theory that supports the current work is the dynamic capacity theory. This theory was proposed by Teece et al. [14] and aims to help organizations build, combine, and rebuild external and internal capabilities to cope with rapidly changing environments. Studies have shown that for an organization to remain competitive in its industry, it needs to have dynamic capabilities that constitute an organization’s ability to effectively use its resources [15, 16, 17, 18]. The theory of dynamic capabilities focuses on the way organizations acquire and create wealth in a rapidly changing environment through organizational culture and innovation [5]. Recent research has linked dynamic capability theory to organizational culture, innovation, and bank performance [3, 4]. The theory believes that banks should set up training centres for employees to learn to use modern technology to serve customers, obtain work skills and technical knowledge, and be familiar with rules and regulations, management behavior, professional goals and ethics.

1.2 Organizational Culture

Since the 1980s, the concept of organizational culture has attracted a lot of research. Before the concept appeared in the literature, the concept of organizational climate was common in the organization and management literature of the 1960s and 1970s. The terms climate and culture can be used interchangeably until the concept of organizational culture is established as a unique field of study [19]. Dwirantwi [20] believes that organizational culture includes organizational attitudes, experience, beliefs and values acquired through social education, and governs the way people work. Dwirantwi [20] emphasized that the key competitive advantage of successful organizations is their culture. Studying it is an important aspect of organizational development, which is the process by which an organization develops its internal capabilities to make it more effective in its work and sustaining itself.
Owoyemi and Ekwoaba [21] consider organizational culture as how each member of the company feels about all aspects of business life. Cameron and Quinn [22] believe that organizational culture is strongly related to organizational uniqueness, values, mission, purpose, goals, and the way shared values are established. Furthermore, organizational culture represents an intangible and indisputable belief system that can justify the organization's behavior. Organizational culture is widely regarded as one of the unique characteristics that distinguish successful organizations from other organizations [23,24]. Therefore, understanding the concept of organizational culture is a vital task for leaders, because it has a great impact on all aspects of organizational behavior.

1.3 Innovation

The concept of organizational innovation can be traced back to Drucker [24], who defined innovation as a specific tool for entrepreneurs to use change for diversified companies or services. Innovation is used to refer to new products, services, processes, or technologies that need to be accepted and eventually adopted and implemented [3]. According to Daugherty et al. [25], innovation is a new idea, practice, or object that an individual or other adopter considers to be a new idea, practice, or object. Tidd et al. [26] define innovation as the process of turning opportunities into new ideas that are widely used in practice. Afuah [27] points out that innovation is “the use of new technology and management knowledge to provide customers with new products or services. Sutanto [9] also believes that innovation is a factor that allows innovative processes to produce new products and services, new technologies, and new concepts. Previous research has shown that innovation creates more opportunities and is critical to the survival, economic growth and success of the company [4, 5, 6, 8, 11, 12].

1.4 Organizational Performance

Many researchers have made different evaluations of performance. Overall performance is actually a controversial topic among organizational researchers [28]. For example, according to Barney [28], performance is equivalent to active software or the well-known 3Es (Economy, Efficiency and Effectiveness). However, according to Daft [29], the overall performance of an organization is the company's ability to use resources in a green and powerful way to achieve its aspirations. Like Daft [29], Ricardo [30] describes overall organizational performance as the ability of the organization to achieve its dreams and goals. Institutional performance is affected by the question of best definitions, but also by conceptual difficulties. Heffernan and Flood [31] pointed out that, as a contemporary management concept, organizational operations face the problem of clarity of assumptions in certain areas. The first defines the rotation, while the second defines the size. The performance of work is sometimes affected by productivity. According to Ricardo [30], there is a difference between performance and productivity. The rate of change in productivity indicates the amount of work at a given time. Performance becomes a comprehensive indicator, including productivity, high quality, consistency, and other elements. In the final results-oriented evaluation, productivity measures are generally considered [31].

1.5 Empirical Review and Hypotheses Formulation

A plethora of studies on organizational culture, innovation and organizational performance are reviewed because of their relevance to this study.

For example, Aboramadan et al. [3] conducts a study on the influence of organizational culture and innovation on Banks’ performance. The results indicate that organizational culture and marketing innovation have a positive influence on banks’ performance. Another study conducted by Uzkurt et al. [12] on the role of innovation in the relationship between organizational culture and organizational performance, reveal that innovation has a positive link with organizational culture and organizational performance. Similarly, Sutanto [9] also examines the influence of organizational learning capability and organizational creativity on organizational innovation. The result reveals that organizational learning capability and organizational creativity are major predictors of organizational innovation. In a similar study, Salimi and Aveh [32] examine the relationship between organizational culture and innovation with the mediation of job enrichment. The findings show that organizational culture has a positive association with innovation, while job enrichment play a significant mediating role between the two constructs. In the same vein, Naranjo-Valencia et al. [6] examine the relationship between
organizational culture, innovation, and performance in Spanish companies. The results indicate that a positive relationship exists between organizational culture, innovation, and organizational performance. The work of Krasnicka et al. [33], which examines the link between management innovation, pro-innovation organizational culture and enterprise performance. The results also confirm that there is a positive linkage between management innovation, pro-innovation organizational culture and enterprise performance. In the same manner, Jimenez-Jimenez et al. [34] carried out a study on the role of market orientation and organizational learning in fostering innovation. The study established that market orientation and organizational learning have capacities to influence innovation. Crossan and Apaydin [8] agree with the previous studies that organizational culture and innovation play a significant role in determining an organization’s success. In line with assertion, Hartmann [35] reiterate that organizational culture encourages innovation among employees, because it drives them toward accepting innovation as a philosophy of the organization, which leads to organizational performance. Both theoretical and empirical studies confirm that organizational culture and innovation were creativity and initiative, entrepreneurial mindset, freedom and autonomy, risk taking, teamwork, marketing orientation and flexibility that influence organizational performance [7, 8, 20, 21, 30]. Thus, the following hypotheses are proposed that:

H1: Organizational culture and innovation jointly and independently influence bank’s performance
H2: There is a positive relationship between organizational culture and innovation

1.6 Conceptual Framework

Based on the theoretical and empirical findings, it is expected that organizational culture and innovation will jointly and independently lead to banks’ performance.

1.7 Data Treatment and Pre-Estimation Test

Diagnostics tests were carried out on the data as follows:

1.7.1 Heteroskedasticity test

To confirm the reliability of the data used, the heteroskedasticity test was used as a post-test tool. This test is essentially on the variance of the error term. It helps to confirm whether or not the variance of the error time is constant or not. Table 1 below indicates the result of the test.

From Table 1 above, p-values of organizational and culture and innovation are 0.483, and 0.875 respectively. The p-values for organizational and culture and innovation are higher than 0.05. This shows that there is no heteroskedasticity hassle in the model [36] hence the model is useful.

Fig. 1. Conceptual model

Source: Designed by Researchers

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Culture</td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>Banks’ performance</td>
</tr>
</tbody>
</table>
Table 1. Heteroskedasticity test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B 9.003</td>
<td>Std. Error 1.167</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational culture</td>
<td>1.494</td>
<td>.000</td>
<td>.124</td>
<td>.703</td>
</tr>
<tr>
<td>Innovation</td>
<td>3.445</td>
<td>.000</td>
<td>.027</td>
<td>.157</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Absut

1.7.2 Multicollinearity test

Multicollinearity test was used to check if there is any inter-association among the corporate venturing dimensions (see Table 2).

From Table 2, the VIF values for organizational and culture and innovation are 4.649, and 4.233 respectively. The VIF value for each variable is higher than 1 but less than 10. According to Vatcheva et al. [37], if the VIF value is between 1 and 10 this shows that there is no multicollinearity. However, if the VIF value is less than 1 or higher than 10 then there is multicollinearity. This capability there is no multicollinearity amongst the independents variables in the model and consequently reliable.

Mathematical Model

The model specification of this study stated thus:

\[
\begin{align*}
X &= \text{Independent Variables (Organizational culture and innovation)} \\
Y &= \text{Dependent Variable (Banks' Performance)} \\
Y &= [y_1] \\
X &= [x_1, x_2]
\end{align*}
\]

Functional relationship

\[
\begin{align*}
Y &= f(X) \\
y_1 &= f(x_1, x_2)
\end{align*}
\]

Regression model for the study,

\[
\text{Banks' performance} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \mu
\]

\[
\beta_1 - \beta_2 = \text{coefficients of the independent variable}
\]

\[
\mu = \text{error term}
\]

2. METHODOLOGY

The present study is a quantitative study applied to the Nigerian banking sector with the purpose of examining the influence of organizational culture and innovation on banks' performance. Data were gathered using a self-administered questionnaire distributed to the employees of Zenith bank, Guaranty bank, First bank, United Bank for Africa, and Eco bank located in Ibadan metropolis. The selection of these banks is based on the fact that there are 5 top banks that received an award from the Global Finance Magazine World's Best Banks Awards in May 2020 for providing quality financial services in Nigeria [38] and it assumed that they have the same cultural innovative policies. The distribution and collection method were the drop-off and pick up approach. A total of 250 employees were invited from the total population of 1,650 employees to fill the questionnaire through simple random sampling technique. A total of 175 filled and usable questionnaires were gathered and valid for statistical analysis.

2.1 Measures

The scales measuring organizational culture, innovation and performance. The scales were designed with a 5-item Likert scale from 1=strongly disagree, to 5=strongly agree. The organizational culture scale was driven from the previous works [20, 21, 13] Innovation scale was adopted from the works of Kim and Chang [4] and Calciolari et al. [5] respectively. While performance was driven from the works of Naranjo-Valencia et al. [6] and Rezaei et al. [7]. A reliability test was employed to verify the internal consistency of the data (see Table 3). Pearson Moment correlation and regression model were used to analyse the data.

3. RESULTS AND DISCUSSION

Table 4 presents the regression analysis of the model, showing the relationship between the dependent variable (banks' performance) and the independent variables (organizational culture and innovation). From the model, variables are significantly related to an R-value of 68% (P<0.05). The R-square value at 0.46 depicts that the independent variables explained 46% variance in the dependent variable. This is to say
Table 2. Multicollinearity test (VIF) coefficients*

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity statistics</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td></td>
</tr>
<tr>
<td>Organizational culture</td>
<td>0.215</td>
<td>4.649</td>
</tr>
<tr>
<td>Innovation</td>
<td>0.236</td>
<td>4.233</td>
</tr>
</tbody>
</table>

Source: Researchers’ Computation

Table 3. Reliability of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Cronbach’s Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational culture</td>
<td>8</td>
<td>0.91</td>
</tr>
<tr>
<td>Innovation</td>
<td>6</td>
<td>0.85</td>
</tr>
<tr>
<td>Performance</td>
<td>5</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Table 4. Result of regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model (Banks’ Performance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.456</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>1.780 (0.259)*</td>
</tr>
<tr>
<td>Innovation</td>
<td>1.173 (0.159)*</td>
</tr>
<tr>
<td>R</td>
<td>0.68</td>
</tr>
<tr>
<td>R Square</td>
<td>0.46</td>
</tr>
<tr>
<td>F</td>
<td>24.872*</td>
</tr>
</tbody>
</table>

*P<0.05   **P<0.01 t-value in parenthesis; Source: Authors’ computation

4. CONCLUSION AND IMPLICATION

The study examines the influence of organizational culture and innovation on banks’ performance with particular reference to the selected banks in Nigeria. The study established that organizational culture and innovation jointly and independently influence banks’ performance. It was also established that organizational culture has a direct and positive association with innovation. It was concluded that organizational culture and innovation are major strategies for the banking sector to wax stronger minds global competitive environment and COVID-19 syndrome. Therefore, Nigerian banks encourage their staff members to create innovative ideas and provide them the right reward to establish an innovative culture in the organization. This study practically provides a useful recommendation to the Nigerian banks on the significance of organizational culture and innovation and their contribution to performance.

CONSENT

As per international standard or university standard, Participants’ written consent has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.
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