

**IMPACT OF CORPORATE CULTURE ON FINANCIAL PERFORMANCE: A
STUDY ON THE ACCEPTED EXTERNAL COMMITMENT VALUES OF
LISTED FOOD AND BEVERAGE COMPANIES ON THE VIETNAM STOCK
MARKET**

Duyen Chau Thi Le¹, Dan Phan Van*², Anh Nguyen Pham Tuyet³, Thuan Tran Gia⁴, Luan Ly Tran⁵

^{1,2,3,4,5}School of Economics, Can Tho University, Vietnam

* Corresponding author, E-mail: pvdan@blu.edu.vn

ARTICLE INFORMATION	ABSTRAK
<i>Section</i> Research Results Articles	This study investigates the impact of external commitment values on business performance, measured by Return on Assets (ROA), for food and beverage companies in Vietnam from 2019 to 2021. Utilizing a quantitative research model, the study analyzes data from 108 annual reports of publicly listed companies on the Vietnamese stock market. The model examines seven externally validated commitment values derived from the annual reports: quality-innovation, economic, customer, people, product, social responsibility, and financial. Findings reveal that quality-innovation, people, and social responsibility values positively influence business performance, whereas economic and customer values have a negative impact.
<i>History of Article</i> Submitted: 04/10/2024 Accepted: 08/02/2026 Available online: 27/02/2026	
<i>Keywords</i> Corporate Culture, External Commitment Values, Financial Performance, ROA	

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INTRODUCTION

The determinants of a company's brand and image are multifaceted, with organizational culture emerging as a pivotal factor (Schein, 2010). Organizational culture, when effectively harnessed, serves as a powerful tool that can not only ensure business survival but also foster sustainable growth in today's volatile business environment (Barney, 1986; Dineen et al., 2019). It acts as an intangible asset critical to an organization's resilience, affecting both employee dynamics and overall company performance (Sadri & Lees, 2001; Choi & Lee, 2021). Extensive global research has explored corporate culture, with influential models established by Recardo and Jolly (1997), Denison (1990), and Cameron and Quinn (2006), setting the stage for further studies (Kotter & Heskett, 1992; Deal & Kennedy, 1982; Liu et al.,

2020). Research has also delved into the interplay between corporate culture and other factors, such as economic efficiency (Calori & Samin, 1991; Lin et al., 2021), employee commitment (Ooi Keng Boon, 2006; Singh & Gupta, 2022), and leadership styles (Nwibere, 2013; Jiang et al., 2020).

In Vietnam, notable contributions by researchers like Lieu (2008) and Quan (2012) have advanced the understanding of corporate culture (Nguyen & Hoang, 2015; Doan & Dao, 2019). It has been demonstrated that corporate culture significantly impacts employee behavior, attitudes, productivity, and overall business outcomes (Gordon & DiTomaso, 1992; Cameron & Quinn, 2011; Hu & Zhang, 2022). Research by Silverzweig and Allan (1976) indicated that operational results invariably shift with changes in corporate culture (Kroeck, 1992). Kotter and Heskett (1992) further noted that firms with robust cultures exhibit markedly better operational outcomes, including revenue growth, net profit, and stock value, compared to those with weaker cultures (Hofstede, 2001; Denison & Mishra, 1995; Lee et al., 2021). This correlation has also been observed in Vietnamese enterprises, as evidenced by Thu & Tien (2010; Nguyen & Doan, 2017; Vu & Bui, 2023).

Moreover, externally endorsed commitment values, which reflect an organization's outward commitments and disclosures, play a crucial role in shaping corporate image and business performance (Meyer & Allen, 1997; Chen & Wang, 2022). This study focuses on how corporate culture, as reflected through these externally endorsed values, impacts the performance of publicly listed companies in the food and beverage sector in Vietnam. It aims to offer managerial insights to help organizations, particularly those listed on the Vietnamese stock market, develop a more robust and effective corporate culture.

THEORETICAL BACKGROUND AND RESEARCH MODEL

According to Schein (2010), corporate culture is considered the amalgamation of values, beliefs, and behavioral norms within an organization. Corporate culture serves as the foundation for the behavior and activities of each individual and is both the product and asset of every business. For Sadri and Lees (2001), corporate culture is propelled by the company's vision and mission, representing a mental picture of the desired future of the company. In Vietnam, as per Quan (2012), corporate culture is a business management method built and implemented by members, reflecting a distinct identity and style identifiable through characteristic signs. It conveys meanings, images, and specific values to relevant stakeholders, serving as a tool that organizations and businesses use to establish a competitive advantage through their brand while operating in the global economy. Lieu (2008) has defined corporate culture as the entirety of distinctive spiritual values that impact the emotions, intellect, and behavior of all members within the business.

There are various definitions of corporate culture, but its significance remains paramount for businesses. Corporate culture evolves along with the development of a business and goes beyond business or communication culture; it is the synthesis of all intangible values that uniquely contribute to a company, making it distinct and irreplaceable. Organizational culture is a dynamic pathway often used to achieve progress in productivity and the quality of work life for employees (Rose, Kumar, Abdullah, & Ling, 2008). The ultimate purpose of corporate culture is to motivate, foster creativity, and enhance the work spirit of individuals within the organization, contributing to the company's development both ethically and economically. However, not every business successfully builds a culture for its organization, but effectively implementing cultural values both internally and externally contributes to the sustainable development of the business.

Currently, there is a plethora of research worldwide on the relationship between corporate culture and financial performance in various fields. Most studies conclude that there is an

impact of corporate culture on financial performance, and this relationship is positive. For instance, Uzokurt et al. (2013) found that corporate culture is a crucial factor leading to the success of an organization, fostering innovation, productivity, and financial efficiency. Uddin et al. (2013) also affirmed the existence of a close relationship between organizational culture and organizational efficiency. According to Hartnell et al. (2011), business managers use organizational culture effectively not only to shape employee attitudes but also to enhance operational and financial efficiency in the organization. Financial performance includes information on how management utilizes organizational culture to introduce and innovate products and improve processes and services. Financial activities include information related to achieving profitability, productivity, and growth within the organization.

Moreover, businesses with strong cultural foundations are considered the key to improving performance and serve as a driving force for success. Companies with a strong culture are believed to create an almost invisible social energy field, empowering employees and driving the organization towards superior performance (Olu Ojo, 2009). Simoneaux and Stroud's study (2014) also emphasizes the importance of a strong culture as a motivator for organizational efficiency. In another study by Sharma and Good (2013), positive results were found, stating that a strong culture is crucial for improving profitability and financial efficiency in organizations. Some argue that companies with sustainable superior financial performance are often characterized by a set of distinctive cultural values, promoting flexible innovation within the business. Conversely, a weak or ineffective organizational culture can potentially impact profitability and productivity (Shahzad et al., 2012). Corporate culture creates a positive working environment through the efforts of managers and employees (Eaton and Kilby, 2015), enabling them to promote and improve performance when working in a positive environment (Schein, 2010).

In contrast to many previous studies focusing solely on the internal aspects of organizational culture, neglecting the external commitment values of the organization, Joanne Martin offers a different perspective on corporate culture by analyzing externally committed factors. This study is conducted based on the research model of Joanne Martin et al. (1988) because it is considered a large-scale study and serves as a foundation for many subsequent studies. Martin's model consists of nine externally committed values, including humanism, teamwork, social responsibility, financial commitment, economic allocation, product, quality, customer, and innovation. Among these, four values are special cases of others: teamwork is a special case of humanism, while quality, innovation, and customer are special cases of product. Recognizing the correlation between certain factors, Martin grouped the nine values into seven clusters: quality-innovation, economic, customer, human, product, social responsibility, and financial commitment.

This study will analyze the influence of external values on financial performance through the seven factors mentioned, and the degree of influence of each factor has been examined by various researchers, showing a relationship with financial performance. This forms the basis for the author to propose hypotheses:

Quality – Innovation: These are two special cases of the product, grouped together by Martin. In Martin's study, the results also indicate a positive impact of quality and innovation on financial efficiency. Another study by Khanh et al. (2022) emphasizes innovation as a foundation for product differentiation, enabling businesses to gain a competitive advantage in the market. Additionally, the impact of technological, product, and organizational innovation all positively affects operational results in the industrial sector in Ho Chi Minh City (Huyen et al., 2020). In another study, the results also show that process innovation has the strongest relationship with financial performance, followed by product innovation and product quality, with product quality having a relatively weaker impact on financial performance compared to

innovation (Prajogo & Ahmed, 2007). Therefore, quality – innovation will play a certain role in influencing customer choices and, consequently, the financial performance of the business.

Hypothesis H1: Quality–Innovation has a positive impact on financial performance.

Economic: In an ever-changing economic environment, a country's economic conditions present various opportunities and threats to businesses in different industries, influencing their strategies. Thuy and Duong's study found that long-term inflation negatively impacts stock price indices on the HOSE. Another discovery by Tuan (2018) highlighted that political uncertainty, particularly during national elections, can negatively affect cost efficiency in commercial banks in the region.

According to Martin, organizations in economic clusters with lower financial performance often attribute it to the economic environment. These companies are known to be significantly affected by negative economic fluctuations in the national economy. Additionally, when the economic environment changes, companies with a strong culture may face more difficulties. They are less likely to accept benefits from opposing cultures, potentially causing them to lag behind organizations with weaker cultures that are more accepting of external benefits (Sorensen, 2002). Martin's research results demonstrate that economic factors have a negative impact on financial efficiency.

Hypothesis H2: Economic factors exert a contrary impact on financial performance.

Customers: This is a crucial factor in determining the success or failure of a business. To achieve efficiency in business, enterprises need to gain the trust of customers and provide the utmost experience for them. Liang et al.'s (2009) study emphasizes that customer perception positively influences financial performance. Managers consider consumers as partners in service provision, and their behavior promotes a positive atmosphere, eliminates arising barriers, and helps customer relationships progress, thereby enhancing financial efficiency. Additionally, significant positive impacts of customer satisfaction on financial performance were found in Chi & Gursoy's (2009) study. Results are also consistent with Martin's research, indicating that companies within customer clusters have a positive impact on financial performance. Overall, customers are a critical factor that businesses need to pay special attention to, implementing timely policies to attract and maintain relationships with customers as they are direct consumers generating revenue for the business. Therefore, this is considered a factor influencing the financial performance of the enterprise.

Hypothesis H3: The Customer factor has a positive impact on financial performance.

Human resources: This factor places more emphasis on human-oriented aspects, focusing on employees, their importance, team spirit, and happiness. According to Martin's research, companies falling under this factor show negative financial performance. Martin notes that companies in this category tend to employ riskier strategies, being more lenient in their explanations. However, the risk of employee job loss remains present in takeover and merger strategies. Therefore, organizations that pose a greater threat to employee jobs often endorse strong individualistic human values, notably different from other companies (Martin et al., 1988). In a study by Chi & Gursoy (2009), it was revealed that employee satisfaction does not directly impact financial performance but only indirectly through customer satisfaction. In cases where employees fail to meet customer satisfaction, employee benefits may be limited, potentially reducing employee commitment to the organization. According to Xenikou and Simosi's (2006) explanation of the influence of adaptive orientation on a company's short-term performance, this study also indicates that a human-oriented orientation directly and positively affects the financial performance of the business unit. Specifically,

employees may take actions to achieve personal goals that are not aligned with the organization's goals, leading to conflicts in interests among employees. Therefore, it is expected that the Human Factor will have a negative impact on business financial performance.

Hypothesis H4: The human factor has a contrary impact on financial performance

Product: A study indicates that products and services play a crucial role in ensuring the success of small and medium-sized enterprises (SMEs) in Bangladesh. Innovative products, quality, cost, reliability, and services are strategic aspects contributing to the business success. Additionally, Martin's results also show that companies focusing on their products have a positive financial efficiency coefficient. Indeed, the product is akin to the soul of a company, determining its success or failure. If a product is of high quality and reliable, it will influence trust and satisfy customer needs, leading to increased sales (Homburg et al., 2010). This, in turn, generates revenue and fosters company growth.

Hypothesis H5: Product has a positive impact on financial performance.

Social Responsibility: This is a factor that addresses the commitment of a business to contribute to development through adherence to standards regarding environmental protection, gender equality, occupational safety, labor rights, fair wages, employee training and development, and community development. When effectively implementing social responsibility, organizations not only affirm their position and reputation in society but also attract additional customer segments, thereby promoting the scale and business scope of the organization. Giannarakis et al. (2016) observed that engagement in socially responsible initiatives has a significantly positive impact on financial performance. They found that increasing expenditures on CSR activities enhances the financial performance and profit-generating capacity of a company. Companies in the technology industry consider fulfilling the social responsibility of a business as a foundation for improving growth rates and ensuring long-term financial efficiency (Okafor et al., 2021). Similar results were found in Martin's study, where companies with a focus on social responsibility within their cluster showed positive financial performance. Therefore, social responsibility is expected to have a positive impact on the financial performance of businesses.

Hypothesis H6: Corporate Social Responsibility (CSR) has a positive impact on financial performance

Financial: Refers to the financial situation of the company, including sales figures, currency figures, and explanations for similar matters. Also in Martin's study, the results indicate that the group of companies focusing on demonstrating financial factors has a negative financial performance index. This result suggests that the committed values are used more for external purposes than for internal influence for reputation management. In a study on factors influencing the disclosure of financial information by companies listed on HOSE, the results showed that the profitability factor has an inverse impact on the level of disclosure (Phuong & Phuong, 2014). These findings are consistent with the argument of Bujaki & McConomy (2002) that businesses facing declining revenues tend to disclose more information, which aligns with the context of the current research. Therefore, it can be said that, to create a positive image in the eyes of customers, partners, and investors, companies tend to mitigate their weaknesses through financial factors and accompanying explanations, especially in challenging situations. Hence, financial factors are expected to have an inverse impact on business performance.

Hypothesis H7: Financial has an inverse impact on financial performance.

Based on the theoretical framework of external commitment values and the results of Martin et al.'s (1988) research, along with relevant studies, the author proposes a model illustrating how the external commitment values of corporate culture influence business performance outcomes as follows (Figure 1: Research Model)

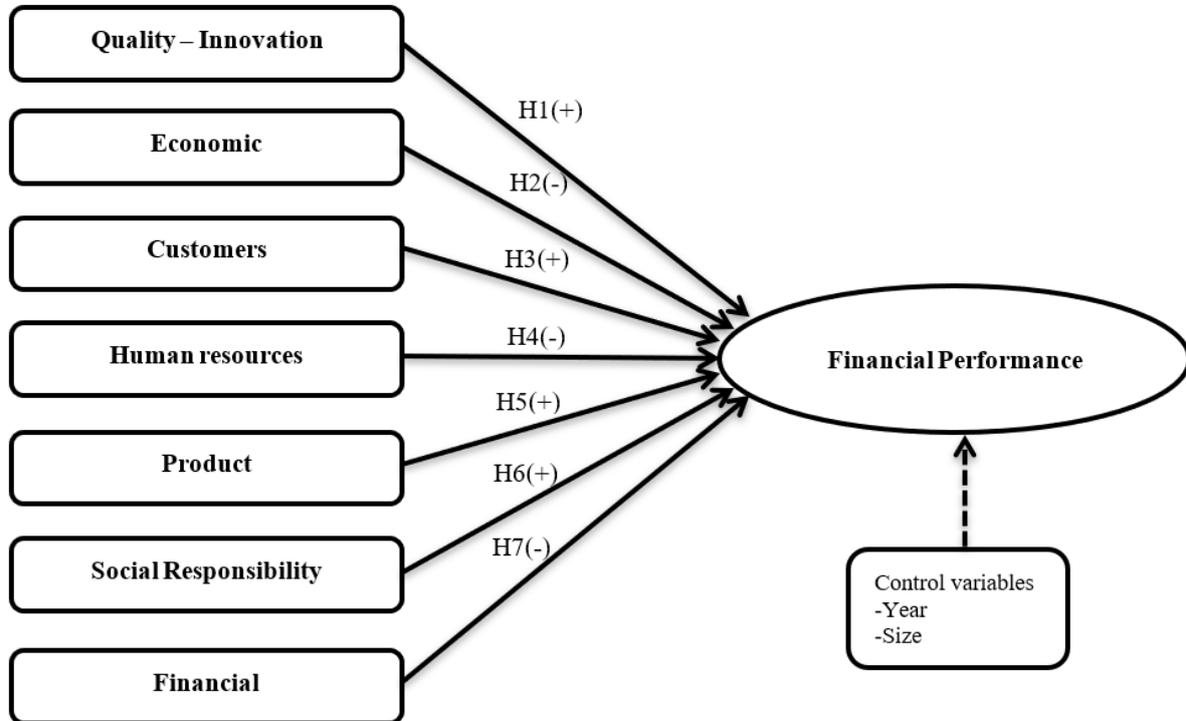


Figure 1. Conceptual Framework
 Source: Adapted from Martin (1988)

The research employs two control variables: the number of years in operation of the company (NHD) and the company's scale measured through the number of employees (QM). These variables are utilized with the aim of mitigating the potential confounding effects on the research outcomes. However, it is essential to note that these control variables are not directly aligned with the commitment values under investigation in the study. Therefore, issues related to control variables are not extensively discussed in this research, as the primary focus is on examining the commitment values and their impact on business outcomes.

RESEARCH METHODS

Sample

The study collected secondary data on corporate cultural values and business performance from various sources: (1) Vietstock Official Securities Information Portal: This platform was used to aggregate information and data from annual reports, financial reports, and sustainable development reports. (2) Official Websites and Portals of Researched Companies: The primary websites or official portals of the companies provided information on company profiles, products, shareholders, business operations, and corporate social responsibility. (3) Economic, Financial, and Stock Information Websites: Other reputable websites specializing in economic, financial, and stock information were also consulted. (4) Scientific Journals, Research Papers, Government Decrees, and Legal Regulations: These sources were explored for relevant information related to corporate activities and corporate culture.

After gathering the research data, the analysis of annual reports was conducted. The encoding of values was performed using a method based on the approach outlined in Martin's study. The encoding of external commitment values from the annual reports of companies was carried out as follows:

The annual report will be divided into four parts for encoding, including chairman's letter, text, figures/tables, and captions/headings. The next step is to identify the values appearing in these four parts. Due to the length and complexity of large text pages, each page will contain two encoded values. These two codes may be the same if there is only one dominant value throughout the entire text. If not, two different values will be displayed.

- For the chairman's letter, the first 20 paragraphs of the letter will be separately encoded. If the letter contains fewer than 20 paragraphs, the encoding process will stop at the last paragraph.
- Other text pages will also be encoded with a quantity of 20 pages. Pages containing financial reports of the company (usually separate from the rest of the text) will not be encoded. Completely numerical pages will also be excluded. If the report contains fewer than 40 pages meeting these requirements, the encoding process will return to the beginning and encode the previously unencoded pages.
- Encoding the first 20 figures/tables involves presenting them in the form of charts, graphs, diagrams, etc., with the figure/table provided as a code. Encoding dominant values in visuals is typically straightforward. For example, financial tables extracted from company accounts are encoded as finance. Graphs depicting national economic data are encoded as economy. For an image or drawing, the dominant value is determined by identifying which object or subject is more prominent: clearer or more detailed and larger. If needed, each quadrant of each image is encoded, counting the original quadrant codes to determine the dominant content theme.
- Finally, encoding 20 captions/headings. Captions usually consist of one or two lines, but often these few lines make up a unified point for a single dominant code. For instance, if captions/headings for images primarily consist of employee names, Humanism is scored.

If it is difficult to determine whether a case is special or default, the default value will be used (Martin et.al, 1988). After obtaining the frequency of occurrence of values in each section of the annual report, each value will be encoded, transitioning from qualitative to quantitative data by calculating the percentage of each value—how much it represents in each section of the annual report and the entire annual report. This process generates a dataset for analysis.

Measurement

Using the collected data on external commitment values and business performance results, the study conducts regression analysis. Regression analysis is employed to measure the degree of influence of independent variables on dependent variables. The study runs a multiple regression model with the support of STATA software, specifically employing Pooled Ordinary Least Square (Pooled OLS), Random-effects Model (REM), and Fixed-effects Model (FEM) methods. The Hausman test is utilized to compare FEM and REM. After selecting the appropriate model, the authors perform a diagnostic check for model deficiencies, and if any shortcomings are identified, the Feasible Generalized Least Squares (FGLS) estimation is used for adjustments.

$$Y_{ij} = \beta_0 + \beta_1 X_{1ij} + \dots + \beta_K X_{Kij} + u_{ij}$$

In which:

Y_{ij} : Dependent variable for observation i in period j

X_{1ij}, \dots, X_{Kij} : Independent variables for observation i in period j

With this method, the time factor is neglected, and it only considers cross-sectional data or utilizes pooled data. The raw estimate is the Ordinary Least Squares (OLS) estimate on the obtained data set of subjects across space, thus assuming that all coefficients remain constant across different subjects and do not change over time (Gujarati, 2011).

Based on the identified external commitment values influencing business performance as mentioned above, the generalized regression model is represented as follows:

$$HQHDKD_{ij} = \beta_0 + \beta_1 CLDM_{ij} + \beta_2 KT_{ij} + \beta_3 KH_{ij} + \beta_4 CN_{ij} + \beta_5 SP_{ij} + \beta_6 TNXH_{ij} + \beta_7 TC_{ij} + \beta_8 NHDI_{ij} + \beta_9 QM_{ij} + e_{ij}$$

In which:

$HQHDKD_{ij}$ (dependent variable): Represents the business performance (measured through the ROA index) of listed companies in Vietnam.

i, j : Indices defining the company and year.

β_0 : Intercept coefficient of the model.

$\beta_1, \beta_2, \dots, \beta_9$: Regression coefficients.

e : Random error term.

Martin evaluated this model as having the following advantages:

Fixed Effects Model (FEM): Developed from the Pooled OLS model, the FEM incorporates controls for different characteristics among businesses and assumes a correlation between the model's residual and independent variables. The model is expressed as:

$$Y_{ij} = \beta_i + \beta_1 X_{1ij} + \dots + \beta_K X_{Kij} + u_{ij}$$

The model introduces the index i into the intercept coefficient β to distinguish the different intercepts for each business, which may vary due to distinct characteristics or management policies. However, the intercept of each business remains constant over time, meaning it is time-fixed (Gujarati, 2014).

Random Effects Model (REM): Derived from the Pooled OLS model, the REM incorporates controls for different characteristics among businesses but assumes no correlation between the model's residual and independent variables. The basic idea of the random effects model is also based on the model:

$$Y_{ij} = \beta_i + \beta_1 X_{1ij} + \dots + \beta_K X_{Kij} + u_{ij}$$

According to Gujarati (2011), in contrast to the FEM, where β_i is fixed, meaning it does not change over time, in the Random Effects Model (REM), it is assumed to be a random variable with an average value of β_i . The intercept coefficient is described as follows:

$$B_i = \beta_0 + \epsilon_i \text{ với } i = 1, 2, \dots, N$$

Finally, the REM model is:

$$Y_{ij} = \beta_0 + \beta_1 X_{1ij} + \dots + \beta_K X_{Kij} + u_{ij} + \epsilon_i$$

In which:

ϵ_i : Cross-sectional error component

u_{ij} : Combined error component in both space and time series

Model Selection Test: The Fixed Effects' impact is verified by an F-test with the null hypothesis (H0) assuming all coefficients are equal to 0 (meaning no difference between different objects or time periods). Rejecting H0 at a 5% significance level indicates that the fixed effects estimate is appropriate. For the random effects estimate, the Lagrange Multiplier method with the Breusch Pagan test is used to check the suitability of the estimate. The null hypothesis (H0) assumes that the variance between subjects or time periods is constant. Rejecting H0 shows that the errors in the estimate include both group deviations and are suitable for random effects estimates.

The Hausman Test is used to choose the appropriate estimation method between Fixed Effects and Random Effects. The null hypothesis (H0) assumes no correlation between the distinctive errors among subjects and explanatory variables in the model. Rejecting H0 leads to the conclusion that the fixed effects estimate is more suitable than the random effects estimate. Conversely, a lack of evidence to reject H0 means that the correlation between errors and explanatory variables cannot be ruled out, making the fixed effects estimate inappropriate, and the random effects estimate should be prioritized.

RESULTS

External commitment values were collected through the annual reports of companies during the period 2019-2021. From this, the author obtained 108 observations from 36 companies over 3 years, including 22 companies listed on the HOSE exchange and 14 companies listed on the HNX exchange. The commitment values targeted by the study include: innovation quality (IQ), economic (EC), customer (CU), human resources (HR), product (PR), social responsibility (SR), and financial (FN). These values will be presented in detail as follows (Table 1. Descriptive sample, 2019 - 2021)

Table 1. Descriptive sample (2019 - 2021)

External commitment values	2019		2020		2021		Total
	SL	%	SL	%	SL	%	
Innovation quality	420	10.09	434	9.66	425	9.39	1,279
Economic	269	6.46	290	6.45	323	7.14	882
Customer	195	4.68	207	4.61	204	4.51	606
Human resources	1,411	33.89	1,519	33.81	1,523	33.65	4,453
Product	684	16.43	690	15.36	730	16.13	2,104
Social responsibility	333	8.00	387	8.61	366	8.09	1,086
Financial	851	20.44	966	21.50	955	21.10	2,772
Total	4,163	100	4,493	100	4,526	100	13,182

Source: Data analysis results (2023)

Through the data table, we observe that the frequency of appearances of external commitment values in the annual reports of companies is uneven. Among them, the human factor is mentioned the most, with 1,411 occurrences in 2019, accounting for 33.89%, 1,519 occurrences in 2020, accounting for 33.81%, and 1,523 occurrences in 2021, accounting for 33.65%. This result aligns well with contemporary businesses as they consistently emphasize the human factor, considering it crucial for development. Policies regarding salaries, bonuses, and training are regularly addressed to ensure the quality of the workforce and job performance.

Additionally, finance and product are the two variables with relatively high frequencies over the years, accounting for 20.44% and 16.43%, respectively, in 2019. These ratios did not vary significantly in 2020 and 2021. This outcome indicates that finance and product are highly valued by businesses in their operational activities. Financial factors such as revenue and profit are consistently emphasized to showcase operational capabilities and enhance the company's position. Simultaneously, products appear frequently in annual reports to maximize promotion and reach a wide range of customers.

The remaining factors, including innovation quality, economic, social responsibility, and customer, have relatively modest frequencies, each accounting for less than 10% each year. However, the customer factor is mentioned the least, with 195 occurrences in 2019, representing about 4.68%, 207 occurrences in 2020, accounting for about 4.61%, and 204 occurrences in 2021, corresponding to 4.51%. This may potentially impact customer confidence in the company, as annual reports do not emphasize the significance of customers significantly.

The study conducts a multivariate regression analysis with panel data to examine the influence of corporate culture through external commitment values on the financial performance of businesses. This research employs three regression models: the Pooled Ordinary Least Squares (Pooled OLS) model, the Random-Effects Model (REM), and the Fixed-Effects Model (FEM). The models will be adjusted using the Feasible Generalized Least Squares (FGLS) model if any of the three selected models exhibit deficiencies. To choose the appropriate model for the available data, the study will employ additional relevant tests.

Initially, the research performs regression analysis using the Ordinary Least Squares (OLS) method, as detailed in the following table 2 (Table 2. Regression Table using OLS Method).

According to the regression results table, the p-value of the F-test for the model is 0.0001, which is less than 0.05, indicating statistical significance. The adjusted R-squared value for the model is 0.2898, suggesting that the independent variables in the model explain approximately 28.98% of the variance in the dependent variable. However, since the study's data is panel data, the Ordinary Least Squares (OLS) regression model may reveal several shortcomings due to strict spatial and temporal constraints – constant regression coefficients – which could obscure the true impact of independent variables on the dependent variable in the context of using panel data. Consequently, this could lead to a model that is not suitable in practice. Therefore, the study will simultaneously perform two additional estimation models, Fixed-Effects Model (FEM) and Random-Effects Model (REM), and then select the most appropriate model to assess the impact of the independent variables on the dependent variable (ROA).

In the F-test (with the null hypothesis H_0 : The appropriate model is OLS), the p-value is $0.0000 < 0.05$. We reject the null hypothesis H_0 and conclude that the FEM model is more suitable than OLS. The study proceeds to analyze the REM model, and the detailed results are presented in Table 3 (Regression Estimation Results using OLS, FEM, and REM).

Before examining the impact of independent variables on the dependent variable and its significance, it is necessary to choose between the Fixed-Effects Model (FEM) and Random-Effects Model (REM) to assess which model is more appropriate for the panel data of the study. The results indicate a significance level $\text{Prob} > \chi^2 = 0.0004 < 0.05$. Therefore, we accept the alternative hypothesis H_1 and conclude that the FEM model is more suitable for the study's data. The results of the heteroskedasticity test are presented as follows: the model does not exhibit heteroskedasticity, with the significance level $\text{Prob} > \chi^2 = 0.0000 < 0.05$. This implies rejecting the null hypothesis H_0 and concluding that the model does not have heteroskedasticity, with the F-statistic value of $F(1,35) = 1.993$ and $\text{Prob} > F = 0.1668$. The model does not suffer from autocorrelation, as the significance level $\text{Prob} > F = 0.1668 > 0.05$. Therefore, it can be concluded that the model does not exhibit autocorrelation.

After selecting the appropriate FEM model and testing for flaws, the study found that the model exhibits heteroskedasticity. Consequently, Generalized Least Squares (GLS) regression is employed to address this issue. The detailed results are presented in the following (Table 4. GLS Regression Results)

The Wald test with the null hypothesis H_0 : Simultaneously, all independent variables are equal to 0 yields a result of $\chi^2(9) = 193.19$ with a significance level $\text{Prob} > \chi^2 = 0.0000 < 0.05$. Therefore, the null hypothesis H_0 is rejected, indicating that the model is statistically significant. In the column representing the significance level $P > |z|$ of each independent variable, the regression results show that five factors: Innovation Quality (CLDM), Economic (KT), Customer (KH), Human Resources (CN), and Social Responsibility (TNXH) have significance levels less than 5%. Hence, it is concluded that these five independent variables are statistically significant, while the remaining two variables, Product (SP) and Finance (TC), are not statistically significant. The final regression equation regarding the impact of external commitment values on business performance is presented as follows:

$$HQHDKD_{ij} = 4.628 + 0.107CLDM_{ij} - 0.282KT_{ij} - 0.568KH_{ij} + 0.062CN_{ij} + 0.328TNXH_{ij} + 0.001QM_{ij} + e_{ij}$$

(1) Innovation Quality has a positive impact on the dependent variable ROA, as companies focusing on improving existing products, developing new products, and consistently enhancing product quality contribute to success (Martin et.al, 1988; Maranville, 1992). It is evident that Innovation Quality is considered the foundation for product differentiation, allowing companies to gain a competitive advantage in the market (Khanh et.al, 2022).

(2) The economic environment has a counterproductive effect on the business performance of enterprises. This result aligns with the study by Martin et.al (1988), where companies emphasizing economic factors have a negative impact on financial performance. When the economic environment changes, companies with strong cultures face more challenges and are less receptive to the benefits brought by contrasting cultures (Sorensen, 2002).

(3) Customer factor has an unexpected impact contrary to the hypothesis. While the expected hypothesis suggests that the customer factor positively influences financial performance, the model results show that the Customer variable has a counterproductive effect. The difference in results from Martin's original model may be attributed to variations in the sample collection. Martin's study was conducted in the United States, while this research was carried out in Vietnam. Additionally, the time gap between the two studies might contribute to these differences. The Vietnamese food and beverage industry may have been influenced by the Covid-19 pandemic during the 2019-2021 research period.

(4) Another factor with an unexpected impact contrary to the hypothesis is the Human factor. This factor has a positive effect on the business performance of enterprises, while the hypothesis expected a negative impact. This result is inconsistent with Martin et.al's (1988) study, where it was suggested that human factors negatively affect the financial performance of enterprises. However, this result aligns with numerous studies in Vietnam. Human resources are a decisive factor for all business activities (Anh et.al, 2021). Moreover, when a company has many leaders, specifically if the company has more board members, the profitability is likely to be higher (Ngô Thị Hằng and Nguyễn Thị Thùy Linh, 2020).

(5) Corporate Social Responsibility is the variable with the strongest positive impact on ROA in the model. This result is entirely consistent with Martin et.al's (1988) study, where it was suggested that companies focusing on social responsibility have a positive financial efficiency coefficient. Additionally, this result is not surprising, as the positive impact of social

responsibility on financial performance is in line with the majority of studies worldwide, including the research by Giannarakis et.al (2016) and Okafor et al. (2021).

The hypothesis testing results indicate that there are five accepted factors that significantly impact the dependent variable: Innovation Quality (CLDM), Economy (KT), Customer (KH), Human Resources (CN), and Social Responsibility (TNXH). Among them, two variables exhibit effects contrary to the hypothesized direction: Customer and Human Resources. Specifically, the Customer variable has a negative coefficient, indicating a counterproductive effect on the dependent variable, contrary to the expected positive impact. Similarly, the Human Resources variable has a positive coefficient, suggesting a positive effect on the dependent variable, contrary to the expected negative impact. The remaining variables, Product (SP) and Finance (TC), do not demonstrate statistical significance.

CONCLUSION

The results of the FGLS regression analysis reveal that out of the seven external commitment factors derived from annual reports, five significantly impact the financial performance of businesses within the model. Among these, three factors show positive effects: Innovation Quality, Human Resources, and Social Responsibility. On the contrary, two factors exhibit negative effects: Customer and Economy. The remaining variables, Product and Finance, do not demonstrate statistical significance and are excluded from the model.

The study's findings highlight the significance of human resources as a crucial determinant of business success. Additionally, emphasis on innovation quality is essential for companies to keep pace with market trends and the increasing demands of customers. Moreover, social responsibility contributes to building a positive image for a company, fostering trust among partners and customers, thereby facilitating business development.

However, two factors, economic conditions and customer relations, impact financial performance in opposing directions. While economic conditions align with the initial expectations of the hypothesis, the influence of customer relations contradicts expectations, exerting a counterproductive effect on the dependent variable. This result deviates from some previous studies that have assessed the positive impact of customer relations. Nevertheless, these findings serve as inspiration for future research directions.

REFERENCES

- Anh N.T.L Ha Đ.T, Linh N.V, Hung Đ. N, Hang T.T, Kien N.H, Thuy B.T, Minh T.T (2021). "Research on factors affecting business performance from a financial perspective at enterprises in Nam Dinh province." *Journal of Banking Science & Training*, 232, 46-58.
- Thuy T.T.T và Duong.V.T.T (2015). "The impact of macroeconomic factors on stock price indices at HOSE." *Journal of Development and Integration* 24, 59-67;
- Bujaki, M., & McConomy, B. J. (2002). "Corporate governance: Factors influencing voluntary disclosure by publicly traded Canadian firms." *Canadian Accounting Perspectives*, 1(2), 105-139.
- Calori, R., & Sarnin, P. (1991). "Corporate culture and economic performance: A French study." *Organization studies*, 12(1), 049-74.
- Cameron, K.S., & Quinn, R.E. (2006). *Diagnosing and Changing Organizational Culture Based on the Competing Values Framework*. The Jossey-Bass Business & Management Series;
- Chen, S., & Wang, Z. (2022). "Externally Endorsed Values and Corporate Image: The Role of Corporate Social Responsibility." *Corporate Social Responsibility and Environmental Management*, 29(1), 195-209.

- Chi, C. G., & Gursoy, D. (2009). "Employee satisfaction, customer satisfaction, and financial performance: An empirical examination." *International journal of hospitality management*, 28(2), 245-253.
- Choi, J. N., & Lee, S. H. (2021). "The Influence of Corporate Culture on Organizational Performance: Evidence from South Korea." *Asia Pacific Journal of Management*, 38(1), 235-257.
- Denison, D. R. (1990). "Corporate culture and organizational effectiveness." *Advances in Global Leadership*, 3:205-227;
- Denison, D. R., & Mishra, A. K. (1995). "Toward a theory of organizational culture and effectiveness." *Organization science*, 6(2), 204-223.
- Dineen, B. R., Lewicki, R. J., & Tomassetti, A. J. (2019). "The Role of Organizational Culture in the Determination of Employer Attractiveness." *Journal of Organizational Behavior*, 40(2), 216-235.
- Eaton, D., & Kilby, G. (2015). "Does your organizational culture support your business strategy?" *The Journal for Quality and Participation*, 37(4), 4-7.
- Gujarati, D. (2014). *Econometrics by example*. Bloomsbury Publishing.
- Gujarati, D. N., 2011. *Econometrics by Example*. Great Britain, Publisher: Palgrave Macmillan;
- Hartnell, C., Ou, A., & Kinicki, A. (2011). "Organizational culture and organizational effectiveness: A meta-analytic investigation of the competing values framework's theoretical suppositions." *Journal of Applied Psychology*, 96:677-694.
- Homburg, C., Fürst, A., & Prigge, J. K. (2010). "A customer perspective on product eliminations: how the removal of products affects customers and business relationships." *Journal of the Academy of Marketing Science*, 38, 531-549.
- Hu, W., & Zhang, Y. (2022). "Corporate Culture and Employee Productivity: Evidence from the Manufacturing Sector." *Journal of Business Research*, 135, 445-456.
- Jiang, H., Xu, J., & Yang, M. (2020). "Corporate Culture and Leadership Styles: An Empirical Study of Chinese Enterprises." *Leadership & Organization Development Journal*, 41(5), 621-637.
- Liang, C. J., Wang, W. H., & Dawes Farquhar, J. (2009). "The influence of customer perceptions on financial performance in financial services." *International Journal of Bank Marketing*, 27(2), 129-149.
- Lieu D.T (2008). *Corporate culture*. National Economic University Publishing House;
- Liu, Y., Zheng, Y., & Zhang, Y. (2020). "Corporate Culture and Its Impact on Innovation Performance: Evidence from Chinese Firms." *Management Decision*, 58(6), 1121-1135.
- Lin, C., Lin, C., & Liu, C. (2021). "The Impact of Organizational Culture on Firm Performance: A Review and Future Research Directions." *International Journal of Management Reviews*, 23(4), 425-448.
- Lee, K., Lee, J., & Kim, H. (2021). "The Effect of Corporate Culture on Financial Performance: Evidence from the Technology Sector." *Journal of Corporate Finance*, 68, 101932.
- Maranville, S. (1992). "Entrepreneurship in the business curriculum." *Journal of Education for Business*, 68(1), 27-31.
- Nwibere B. M. (2013). "The influence of corporate culture on managerial leadership style: the Nigerian experience." *International Journal of Business and Public Administration*, 10(2):166-187;
- Ojo, O. (2009). "Impact assessment of corporate culture on employee job performance." *Business Intelligence Journal*, 2(2), 388-397.

- Ooi, K. B., & Arumugam, V. (2006). "The influence of corporate culture on organizational commitment: case study of semiconductor organizations in Malaysia." *Sunway Academic Journal*, 3, 99-115.
- Okafor, A., Adeleye, B. N., & Adusei, M. (2021). "Corporate social responsibility and financial performance: Evidence from US tech firms." *Journal of Cleaner Production*, 292, 126078.
- Phuong C.P & Phuong N.T.T (2014). "Factors affecting the level of financial information disclosure of listed companies." *Journal of Economic Development*, 287(1), 15-33.
- Prajogo, D. I., & Ahmed, P. K. (2007). "The relationships between quality, innovation and business performance: an empirical study." *International Journal of Business Performance Management*, 9(4), 380-405.
- Kotter, J.P. and J.L. Heskett (1992). *Corporate Culture and Performance*. New York: The Free Press;
- Khanh H.L.P, Hoang T.Q và Tien V.C (2022). "Factors affecting business efficiency of tea production facilities in Thua Thien Hue province." *Hue University Science Journal*, 131, 175-195.
- Quan, N. M, 2011. *Business ethics and corporate culture*. National Economic University Publishing House.
- Rose, R. C., Kumar, N., Abdullah, H., & Ling, G. Y. (2008). "Organizational culture as a root of performance improvement: research and recommendations." *Contemporary management research*, 4(1), 43-56.
- Sadri, G., & Lees, B. (2001). "Developing corporate culture as a competitive advantage." *Journal of management Development*, 20(10), 853-859.
- Schein, E. H., (2010). *Organizational culture and leadership (4th ed.)*. San Francisco, CA: Jossey-Bas
- Shahzad, F., Luqman, R., Khan, A., & Shabbir, L. (2012). "Impact of organizational culture on organizational performance: An overview." *Interdisciplinary Journal of Contemporary Research in Business*, 3(9), 975-985.
- Sharma, G., & Good, D. (2013). "The work of middle managers: Sensemaking and sensegiving for creating positive social change." *The Journal of Applied Behavioral Science*, 49(1), 95-122.
- Silverzweig, S., & Allen, R. F. (1976). "Changing the corporate culture". *Sloan Management Review (pre-1986)*, 17(3), 33.
- Simoneaux, S., & Stroud, C. (2014). "A strong corporate culture is key to success." *Journal of Pension Benefits*, 22(1), 51-53.
- Singh, S., & Gupta, M. (2022). "Organizational Culture and Employee Commitment: A Meta-Analysis of Recent Empirical Studies." *Journal of Organizational Behavior*, 43(7), 915-934.
- Sørensen, J. B. (2002). "The strength of corporate culture and the reliability of firm performance." *Administrative science quarterly*, 47(1), 70-91.
- Thị Huyen, P., Nhat Phuong Diem, N., Thi Nguyet Nga, T., Thi Anh Van, N., & Khac Hieu, N. (2021). "The impact of innovation on the performance of manufacturing enterprises in ho chi minh city." *Journal of Finance and Accounting Research*, 56:984-990;
- Tuan Đ. A (2018). "The impact of any major value on the efficiency of banking trade in an emerging economy." *Dalat University Science Journal*, 8, 103–117.
- Thu N.Q & Tien N.Đ.P (2010). "Research corporate cultural factors that affect business performance in enterprises." *Journal of Economic Development*, 241, 48-57.
- Uzkurt, C., Kumar, R., Semih Kimzan, H., & Eminoğlu, G. (2013). "Role of innovation in the relationship between organizational culture and firm performance: A study of the banking sector in Turkey." *European Journal of innovation management*, 16(1), 92-117.

- Uddin, M. J., Luva, R. H., & Hossian, S. M. M. (2013). "Impact of organizational culture on employee performance and productivity: A case study of telecommunication sector in Bangladesh." *International Journal of Business and Management*, 8(2), 63-77.
- Vu, H., & Bui, T. (2023). "The Impact of Corporate Culture on Business Outcomes: Evidence from Vietnamese SMEs." *Journal of Small Business Management*, 61(2), 345-367.
- Xenikou, A., & Simosi, M. (2006). "Organizational culture and transformational leadership as predictors of business unit performance." *Journal of managerial psychology*, 21(6), 566-579.