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## Organizational culture and organizational learning: Role of environmental culture and business strategy in SMEs



 **Flavien Mpasi Ya Ntoto**<sup>1</sup>

 **Behiye Cavusoglu**<sup>2\*</sup>

 **Goran Yousif Ismael**<sup>3</sup>

<sup>1</sup>Department of Innovation and Knowledge Management, Faculty of Economics and Administrative Sciences, Near East University, Nicosia, North Cyprus.

Email: [mpasiflavien@gmail.com](mailto:mpasiflavien@gmail.com)

<sup>2</sup>Department of Business Administration, Faculty of Economics, Administrative and Social Sciences, World Peace University, Nicosia, North Cyprus.

Email: [behiye.cavusoglu@wpu.edu.tr](mailto:behiye.cavusoglu@wpu.edu.tr)

<sup>3</sup>Department of Business Administration, College of Business Administration, Noble Technical Institute, Erbil, 44001, Iraq.

Email: [goran.yousif@noble.edu.krd](mailto:goran.yousif@noble.edu.krd)



(+ Corresponding author)

### ABSTRACT

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The study aims to empirically examine the effect of organizational culture and organizational learning on the organizational performance of small and medium-sized enterprises (SMEs) operating in the various sectors of the Democratic Republic of Congo (DRC). The study also examines the moderating role of environmental culture and mediating role of business strategy on organizational performance. Using partial least squares structural equation modelling (PLS-SEM) and bootstrapping procedures, data from 131 SME owners and managers was analysed. Performance indices, including sales, pre-tax profits, and workforce size from 2008 to 2013, were utilized. Regression and analysis of variance (ANOVA) were conducted to examine the relationship between strategy and organizational performance. Findings suggest a positive and significant direct effect of organizational culture and learning on SME performance, with an indirect effect mediated by business strategy. Additionally, business strategy was found to have a significant impact on organizational performance. It was found that business strategy had a statistically significant impact on the organization. As a practical implication, the study recommends that SMEs adopt a sufficient strategy and leverage cost leadership to improve growth and induce better organizational performance.

**Contribution/ Originality:** The study makes several notable contributions to the field of organizational behavior and management, particularly in the context of small and medium-sized enterprises (SMEs) operating in the Democratic Republic of Congo (DRC). The study's originality lies in its comprehensive analysis of multiple factors, its methodological innovations, and its context-specific recommendations.

### 1. INTRODUCTION

The intimate link between culture and the physical environment presents an age-old problem. Today, the business environment is perceived from the perspective of the globalization of different societal environments. However, environmental factors have the potential to threaten a company's stability, regardless of the sector of activity it has chosen. This requires managers to do everything in their power to monitor the dynamics of environmental culture both inside and outside of the organization. In addition, some changes within a culture have a

real impact on the environment. The physical environment appears to shape life, thereby influencing the culture. The study aimed to fill the gap in the literature in terms of organizational culture and business strategy relations. There is no doubt that the cultural environment is the only factor that can exert a lasting effect, given the cumulative weight of its influences.

Based on the impact of culture on small and medium enterprises in their Democratic Republic of Congo (DRC), the study agrees with Liao, Chang, and Wu (2010) in his article "Understanding how culture impacts local business practices," which states that culture is the driving force behind the successful implementation of a business in a given environment. In other words, culture influences many elements of the business, including decision making and negotiation, how people physically and vocally interact in the workplace, protocol, project management, risk appetite, marketing, sales and distribution, etc.

In addition, the culture of a company or country displays the values, beliefs, behaviors, practices, and attitudes that are critical to business success, both locally and globally. And as mentioned by Navin (2016) a company's culture influences the economic, political, social, and ethical principles that the company is required to follow within it. Given Schein (1985) theories, it is worth emphasizing at this point that organizational culture is the personality of the organization, and its traits are unconsciously reflected in the behavior of its individuals. Therefore, culture plays a key role in risk management and risk appetite, while contributing to the competitiveness of the organization. Corporate culture refers to the invisible foundation that drives an organization, such as beliefs, principles, practices, and emotional dedication. Consistency and unity are provided by organizational culture. According to Schein (1996) corporate culture is the most important aspect in a circumstance where organizational culture is the most powerful force in the company. On the other hand, to talk about cultural environment is to recognize that the structures and strategies implemented by companies are determined by their external environment, which includes aspects such as the educational and cultural level of the population, the availability of human resources, and the appropriate technical training. However, Schein (1985) already defined culture as "the deeper level of basic assumptions and beliefs shared by members of an organization, which operate unconsciously and define an organization's view and its environment in a fundamental, 'taken-for-granted' way." Similarly, the changes observed in the cultural dimension and the alignment through training, staffing, etc., point to the strength of organizational learning that, along with the ownership of the organizational culture in an integrated cultural environment, enables the organization, through strategic management, to achieve its targeted performance.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESIS

In general, when we talk about an organization or a company, it implies that there are strengths and weaknesses within the organization and threats and opportunities outside the organization that need to be taken into account in order to do more or less. There is a close relationship between the above factors and the forces that drive them to achieve the desired results for the organization. In this study, these forces are assumed to be organizational culture (OC), organizational learning (OL), environmental culture (EC), business strategy (BS), and organizational performance (OP). On the other hand, it is well known that the knowledge of environmental culture and organizational culture is an asset for any organization that wants to maximize its profits, and achieve its objectives in real time, and thus maintain its position over time. The same applies to the quality of organizational learning and its impact on organizational performance. The philosophy of environmental culture emphasizes the need to achieve integration between organizational culture, business strategy, and corporate objectives (Schuler, 1992). However, the systems approach assumes that the practice of the forces involved is internally consistent with the company's strategy. It is the practical system that influences organizational performance on small and medium-sized enterprises in the DRC. Furthermore, there is a close relationship between organizational culture and business strategy on the one hand and organizational learning and business strategy on the other. The same relationship also exists between the cultural environment and business strategy. However, these types of

relationships based on business strategies do not seem to have the same effects in small and medium-sized enterprises operating in the DRC. In order to prevent managers and employees from designing and implementing the strategies necessary to pursue the missions assigned to each company, they should address the issue of cultural values and the experiences one acquires throughout one's professional life. The same is true for environmental culture, which is a prerequisite for increased knowledge of how to achieve the company's objectives.

Congolese economic operators are still stuck in their old working methods. Moreover, the development of a culture that is difficult to imitate would enable the latter to generate a sustainable competitive advantage (SCA), as well as competitiveness (Rothaermel, 2013).

The focus of this study would be the impact of culture and organizational learning on the management strategies of small and medium-sized enterprises in the DRC. Baird, Harrison, and Reeve (2007) revealed that organizational culture and learning, and strategy are mutually conditional, and each individual strategy corresponds to a specific organizational culture, learning. Similarly, Bushardt, Glascoff, and Doty (2011) and Thompson Jr, Strickland III, and Gamble (2007) emphasized that supportive and aligned organizational culture for alignment and implementation are the preconditions for successful organizational performance. Furthermore, organizational culture and learning significantly influence socio-economic, political, and ethical principles, which guide the operation of the SMEs (Navin, 2016). According to Isac and Remes (2018) organizational values and norms strengthen organizational strategy. Recently, Gasela (2022) emphasized that organizational culture does not directly influence organizational performance, but it facilitates the implementation of business strategy.

On the basis of the literature, the hypotheses regarding the construction and performance of SMEs were formulated as follows:

- *H1: Organizational culture positively and significantly influences organizational performance.*
- *H2: Organizational learning positively and significantly impacts organizational performance.*
- *H3: Organizational culture positively and significantly affects the formulation of business strategy.*
- *H4: Organizational learning positively and significantly influences the development of business strategy.*
- *H5: A significant relationship exists between business strategy and organizational performance.*
- *H6a: Business strategy serves as a mediator between organizational culture and organizational performance.*
- *H6b: Business strategy acts as a mediator between organizational learning and organizational performance.*
- *H7: Environmental culture (EC) moderates the impact of both organizational culture and organizational learning on organizational performance and business strategy.*
- *H7a: Environmental culture moderates the influence of organizational culture on the formulation of business strategy.*
- *H7b: Environmental culture moderates the impact of organizational learning on the development of business strategy.*
- *H7c: Environmental culture moderates the effect of organizational culture on organizational performance.*
- *H7d: Environmental culture moderates the influence of organizational learning on organizational performance.*

### 3. METHODOLOGY

This is a field study that used a combination of sampling methods based on the size of the city and the complexity of its static units, with a multiple-choice questionnaire as the data collection instrument. In addition, the study used multiple cluster sampling and the representativeness method, followed by simple random sampling, and finally convenience sampling. However, the margin of error of 5% and the confidence level of 95% were taken into account, in addition to the inclusion criteria (having more than 5 employees in the company; having a training program for its staff in the company; having a grade classification for its staff), and exclusion criteria (all those who did not meet the first list of criteria established). We selected 131 respondents from a total population of 1,699 SMEs. The data was collected via Google Forms and took 49 days (15.03.2022-03.05.2022). In addition, quantitative and qualitative approaches were also used to collect data, which was used to analyse the relationship between global constructs and organizational performance in SMEs in the provincial city of Kinshasa, the capital of

the DRC. The choice of the provincial city of Kinshasa among the 26 provinces of the country was more appropriate because it allowed the researcher to have easier access to the SMEs.

The study employed a comprehensive set of statistical techniques to achieve its objectives and examine the research hypotheses. The study utilized confirmatory factor analysis (CFA) to evaluate the reliability, validity, and internal consistency of the measurement scales. The CFA involved assessing factor loadings of the items, calculating the average variance extracted (AVE) to test internal consistency and convergent validity of the constructs, determining composite reliability using rho\_A and Cronbach's Alpha tests for construct reliability assessment, and applying the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT) for the discriminant validity (distinctiveness) assessment of the measurement scales. The study conducted a confirmatory factor analysis (CFA) to assess the reliability, validity, and internal consistency of the measurement scales. The CFA includes the factor loadings of the items, and the average variance extracted (AVE) for the internal consistency and convergent validity tests of the constructs the composite reliability rho\_A, and Cronbach's Alpha tests for the construct reliability test, and the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT) for the discriminant validity (distinctiveness) test of the measurement scales.

To test its research hypotheses, the study used the partial least squares structural equation model (PLS-SEM) and the bootstrap procedure. The estimates produced by PLS-SEM with bootstrapping procedures have higher statistical power, allow for better testing of hypothesised relationships between constructs, and are more suitable for exploratory research (Hair, Henseler, Dijkstra, & Sarstedt, 2014; Hair, Ringle, & Sarstedt, 2011). We used the Smart Partial Least Square application (SmartPLS.3.3.9) to estimate the data. This software was used because of its desirable features, which include the ability to handle small samples, perform multivariate analysis, and produce consistent estimates with non-normal data and reflexive or formative indicators (Hair et al., 2014).

#### 4. RESULT AND FINDINGS

The result shows that the external loading of most of the items (BS, EC, OC, OL, and OP) used in this study is higher than 0.5. The few exceptions are two items (BS6: "Our organizational performance is influenced mainly by the fact that we are low-cost producers", BS10: "Management gives individual attention, rather than general attention") of the Business Strategy (BS) construct, and one item (OL2: "Our organization encourages and strongly recommends its staff to take professional training outside the organization, even at a distance") of the Organizational Learning (OL) construct. Furthermore, the result in Table 1 indicates that the average variance extracted from all constructs is statistically significant and approximately equal to 0.5. To ensure convergent validity and internal consistency of the measurement scales, the external loadings of the items and the AVE of the constructs must be at least 0.5 or statistically significant (Fornell & Larcker, 1981). Therefore, the results established the convergent validity and internal consistency in the measurement scales. The three items (BS6, BS10, and OL2) that were not statistically significant were removed from the constructs before the final model estimation.

**Table 1.** Internal consistency and convergent validity (Factor loading and average variance extracted – AVE).

Items	Factor loading	SD	T-stat.	AVE/P-values
Business strategy				0.462
BS6. Our organizational performance is influenced mainly due to the fact that we are low-cost producers	0.01	0.11	0.06	0.95
BS10. Management gives individual attention, rather than general attention	-0.02	0.11	0.20	0.84
Organizational learning				0.554
OL2. Our organization encourages and strongly recommends its staff to undertake professional training outside the organization, even at a distance.	0.20	0.11	1.86	0.06

**Source:** Results of field research.

In addition, to test the research hypotheses, this study used the partial least squares structural equation model (PLS-SEM) and the bootstrap procedure.

4.1. Reliability Test

The results indicate that the composite reliability scores for all constructs are above 0.8, with rho\_A and Cronbach's Alpha coefficients above 0.7. This suggests that all three tests indicate reliability for all constructs. Therefore, the latent variables (constructs) have passed the reliability test and are valid for further estimation. The results of the Cronbach's Alpha, composite reliability, and rho\_A tests are also presented in Table 2, which show that all bars exceed the 0.7 threshold, indicating that all constructs have passed the reliability test.

Table 2. Reliability test (Cronbach's alpha and composite reliability tests).

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
Composite reliability					
BS	0.885	0.884	0.012	75.563	0.000
EC	0.858	0.855	0.023	37.259	0.000
OC	0.857	0.856	0.017	49.288	0.000
OL	0.821	0.820	0.021	38.852	0.000
OP	0.814	0.813	0.018	45.627	0.000
rho_A					
BS	0.855	0.858	0.016	52.794	0.000
EC	0.811	0.809	0.038	21.171	0.000
OC	0.811	0.814	0.026	31.132	0.000
OL	0.791	0.792	0.034	23.489	0.000
OP	0.713	0.716	0.034	21.153	0.000
Cronbach's alpha					
BS	0.853	0.851	0.017	49.943	0.000
EC	0.798	0.792	0.037	21.631	0.000
OC	0.799	0.796	0.028	28.110	0.000
OL	0.706	0.705	0.040	17.534	0.000
OP	0.715	0.713	0.033	21.394	0.000

Source: Results of field research.

4.2. Structural Link and Discriminant Validity

Establishing a discriminant validity of latent variables (constructs) is fundamental to structural equation modeling (SEM) studies. This study employed the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT) to assess discriminant validity.

In Table 3, the off-diagonal elements represent correlation coefficients, while the diagonal elements represent the square roots of the mean variance extracted (MVE) of each construct. Discriminant validity was evaluated by comparing these diagonal elements (square root of the AVE) with the off-diagonal elements (correlation coefficients). We establish discriminant validity if the square root of the AVE surpasses the correlation coefficient of the construct.

Conversely, if the square root of the AVE falls below the correlation coefficient of the construct. However, the results indicate that the correlation coefficients are lower than the square root of the AVE for all constructs except for business strategy (BS), in which the correlation coefficient (0.721) with organizational culture (OC) is slightly higher than the square root of the AVE (0.679). This suggests that we have established discriminant validity for all constructs, with the exception of BS and OL.

Table 3. Structural link and discriminant validity.

Fornell-Larcker criterion	BS	EC	OC	OL	OP
Business strategy (BS)	0.679				
Environmental culture (EC)	0.532	0.741			
Organizational culture (OC)	0.721	0.494	0.709		
Organizational learning (OL)	0.617	0.539	0.708	0.744	
Overall performance of SMEs (OP)	0.595	0.560	0.580	0.545	0.684
Heterotrait-Monotrait ratio (HTMT)	BS	EC	OC	OL	OP
Business strategy (BS)	0.789				
Environmental culture (EC)	0.622	0.832			
Organizational culture (OC)	0.866	0.607	0.685		
Organizational learning (OL)	0.764	0.725	0.902	0.549	
Overall performance of SMEs (OP)	0.756	0.705	0.763	0.748	0.734

Source: Results of field research.

#### 4.3. Hypothesis Testing

Hypothesis 1 (H1): Organizational culture positively and significantly influences organizational performance.

Result: The OC → OP coefficient ( $\beta = 0.192$ ,  $t = 1.794$ ,  $p = 0.073$ ) is positive but not statistically significant. The p-value (0.073) exceeds the significance level of 0.05, and the t-statistic (1.794) is less than the critical value of 1.96. Therefore, H1 is rejected, indicating that organizational culture does not directly affect organizational performance significantly.

Hypothesis 2 (H2): Organizational learning positively and significantly impacts organizational performance.

Result: The OL → OP coefficient is 0.099, with a t-statistic of 0.951 and a p-value of 0.342. While the coefficient is positive, it is not statistically significant at the 5% level. Thus, H2 is rejected as the t-statistic is below the critical value of 1.96, and the p-value exceeds 0.05, indicating that organizational learning does not directly influence organizational performance significantly.

Hypothesis 3 (H3): Organizational culture positively and significantly affects the formulation of business strategy.

Result: The coefficient of OC → BS ( $\beta = 0.488$ ,  $t = 6.876$ ,  $p = 0.000$ ) is statistically significant. The t-statistic (6.876) exceeds the critical value, and the p-value (0.000) is below 0.05. Therefore, H3 is supported, indicating that organizational culture significantly and positively affects business strategy.

The same applies to Hypothesis 4 (H4), which establishes the relationship between organizational learning (OL) and business strategy (BS). Indeed, the variable for the test of Hypothesis 4 is OL → BS in Table 4, as indicated the above link. The coefficient of the OL → BS path is 0.188, and its t-statistic and P-value are 2.168 and 0.031, respectively. Since the t-statistic (2.168) is greater than the critical t-statistic (1.96) and the P-value (0.031) is less than 0.05, the coefficient is positive and statistically significant at the 5% level. Therefore, there is sufficient empirical evidence to accept hypothesis H4, which implies that organizational learning has a positive and significant effect on business strategy.

Based on the analysis presented in Table 1, a statistically significant relationship was observed between corporate strategy and organizational performance ( $p = .000 < .001$ ). Additionally, Table 2 illustrates that corporate strategy accounts for approximately 31.7% of the variation in company performance (R Square = .317). Consequently, the null hypothesis (H5), positing the existence of a relationship between business strategy and organizational performance of SMEs in the manufacturing sector in the DRC, was not rejected. This outcome corroborates the findings of Kent (1994); Vickery, Droge, and Markland (1993), Schwenk and Shrader (1993) and Porter (1991) who assert that an effective strategy leads to superior and sustainable performance.

Furthermore, this study found that business strategy mediates the effect of organizational culture and organizational learning on organizational performance. The corollary of H5 is H6, which is based on the effect of organizational culture on corporate strategy (H3) and the effect of corporate strategy on organizational

performance (H5), as well as H1. Since both H3 and H5 are accepted, this means that organizational culture significantly and positively affects corporate strategy, which in turn positively and significantly affects organizational performance. This implies that business strategy mediates the effect of organizational culture on organizational performance (H6a). So, H5 was accepted; however, the decision on H1 and the total (specific) indirect effect coefficients of OC → BS → OP were used to examine whether the mediating effect of BS on the link between OC and OP is total or partial. The result shows that the coefficients of OC → BS → OP ( $\beta = 0.123$ ,  $t = 2.660$ ,  $P = 0.008$ ) are positive and statistically significant at the 5% level. However, H1 was rejected, showing that OC has no direct, significant positive effect on OP. This indicates that BS fully transmits the effect of OC on OP. Therefore, business strategy fully mediates the effect of organizational culture on organizational performance. Furthermore, the result does not support H2, but H4. That is, OL does not have a direct positive and significant effect on OP, but it has a significant positive effect on BS, which in turn positively and significantly affects OP. This reveals the acceptance of H6b and concludes that BS mediates the effect of OL on OP.

Hypothesis 7 (H7): Environmental culture (EC) moderates the effect of organizational culture and organizational learning on organizational performance and business strategy was accepted too. According to the test results, the coefficients of EC → BS ( $\beta = 0.216$ ,  $t = 3.167$ ,  $P = 0.002$ ) and EC → OP ( $\beta = 0.273$ ,  $t = 2.658$ ,  $P = 0.008$ ) are statistically significant. This implies that environmental culture has a significant positive effect on business strategy and organizational performance. At the same time, the main hypothesis is the moderation effect of EC, which is included to examine whether the effects of organizational culture and organizational learning on organizational performance and business strategy vary according to the quality of environmental culture. Therefore, four moderating effect variables (EC\_OC → OP, EC\_OL → OP, EC\_OC1 → BS, and EC\_OL1 → BS) were generated to assess the moderating effect of environmental culture on the effect of organizational culture and organizational learning on organizational performance and business strategy.

H7 was tested by testing the four (4) sub-hypotheses (H7a; H7b; H7c; H7d). H7a: Environmental culture moderates the effect of organizational culture on business strategy. A moderating effect variable (EC\_OC1 → BS) was included in the model to examine the moderating effect of environmental culture (EC) on the effect of organizational culture (OC) on business strategy (BS). The direct effect coefficient (path) of EC\_OC1 → BS ( $\beta = -0.107$ ,  $t = 1.528$ ,  $P = 0.127$ ), is negative and statistically insignificant. Thus, H7a is rejected, which means that environmental culture does not moderate the effect of organizational culture on business strategy. In other words, the effect of OC on BS does not vary with the level of environmental culture.

For H7b: Environmental culture (EC) moderates the effect of organizational learning on business strategy, a moderating effect variable (EC\_OL1 → BS) was included in the model to represent the moderation of the effect of OL on BS by EC. The result shows that the coefficient of EC\_OL1 → BS ( $\beta = 0.179$ ,  $t = 2.260$ ,  $P = 0.024$ ) is positive and statistically significant at 5%. This supports H7b, which denotes that environmental culture (EC) moderates the effect of organizational learning on business strategy.

The third sub hypothesis, H7c: Environmental culture moderates the effect of organizational culture on organizational performance, was tested against the alternative hypothesis. We use the variable EC\_OC → OP to capture the moderating effect of environmental culture (EC) on the dependence path of OP on OC. The result shows that the coefficient of the EC\_OC → OP variable is 0.018, while its t-statistic and P-value are 0.156 and 0.876, respectively. This implies that the H7c is statistically insignificant at the 5% significance level. Therefore, the results do not support the hypothesis H7c. Thus, environmental culture does not moderate the effect of organizational culture on organizational performance.

Lastly, the subhypothesis of H7, which is H7d: Environmental culture moderates the effect of organizational learning on organizational performance, was tested. Like the other sub-hypotheses, a variable EC\_OL → OP denotes the moderator variable, which means the moderating effect of EC on the effect of OL on OP. The result reveals that the coefficient of the variable is statistically insignificant ( $\beta = -0.040$ ,  $t = 0.313$ ,  $P = 0.754$ ). Therefore,

H7d is rejected. This means that environmental culture does not moderate the effect of organizational learning on organizational performance. Therefore, environmental culture only moderates the effect of organizational learning on corporate strategy.

**Table 4.** Estimates of the Bootstrap PLS-SEM for hypothesis testing.

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
Path (Direct effect) coefficients					
BS -> OP	0.252	0.244	0.093	2.691	0.007
EC -> BS	0.216	0.227	0.068	3.167	0.002
EC -> OP	0.273	0.276	0.103	2.658	0.008
EC_OC -> OP	0.018	0.012	0.117	0.156	0.876
EC_OC1 -> BS	-0.107	-0.101	0.070	1.528	0.127
EC_OL -> OP	-0.040	-0.027	0.128	0.313	0.754
EC_OL1 -> BS	0.179	0.163	0.079	2.260	0.024
OC -> BS	0.488	0.486	0.071	6.876	0.000
OC -> OP	0.192	0.204	0.107	1.794	0.073
OL -> BS	0.188	0.185	0.087	2.168	0.031
OL -> OP	0.099	0.093	0.104	0.951	0.342
Total indirect effects					
EC -> OP	0.054	0.055	0.027	2.011	0.045
EC_OC1 -> OP	-0.027	-0.024	0.020	1.326	0.185
EC_OL1 -> OP	0.045	0.039	0.026	1.767	0.078
OC -> OP	0.123	0.118	0.046	2.660	0.008
OL -> OP	0.047	0.046	0.031	1.507	0.132
Specific indirect effects					
OL -> BS -> OP	0.047	0.046	0.031	1.507	0.132
EC -> BS -> OP	0.054	0.055	0.027	2.011	0.045
OC -> BS -> OP	0.123	0.118	0.046	2.660	0.008
EC_OL1 -> BS -> OP	0.045	0.039	0.026	1.767	0.078
EC_OC1 -> BS -> OP	-0.027	-0.024	0.020	1.326	0.185
Total effects					
BS -> OP	0.252	0.244	0.093	2.691	0.007
EC -> BS	0.216	0.227	0.068	3.167	0.002
EC -> OP	0.328	0.332	0.098	3.348	0.001
EC_OC -> OP	0.018	0.012	0.117	0.156	0.876
EC_OC1 -> BS	-0.107	-0.101	0.070	1.528	0.127
EC_OC1 -> OP	-0.027	-0.024	0.020	1.326	0.185
EC_OL -> OP	-0.040	-0.027	0.128	0.313	0.754
EC_OL1 -> BS	0.179	0.163	0.079	2.260	0.024
EC_OL1 -> OP	0.045	0.039	0.026	1.767	0.078
OC -> BS	0.488	0.486	0.071	6.876	0.000
OC -> OP	0.315	0.322	0.100	3.142	0.002
OL -> BS	0.188	0.185	0.087	2.168	0.031
OL -> OP	0.146	0.139	0.106	1.379	0.169

Source: Results of field research.

#### 4.4. Model Fitness

The model fitness statistics indicate that the sample mean R-squares for the BS and OP models are 0.606, and 0.506, while those of original sample are 0.586, and 0.471, respectively. The sample mean Adjusted R-squares for the BS and OP models are 0.569, and 0.446, while those of original sample are 0.590, and 0.482, respectively. The results further show that all the R-square values are statistically significant. This is indicated by the P-values, which are less than 0.05, and the T-statistics, which are greater than 1.96 (see Table 5).

The Standardized Root Mean Square Residual (SRMR), the squared Euclidean distance (d\_ULS), and the geodesic distance (d\_G) were also used to evaluate the fitness of the models estimated in this study. For these three

statistics, if the Sample Mean (M) value of the statistic is greater than the 95% critical value (upper bounds), the model is said to have a bad fit. If the Sample Mean (M) value of the statistic is lower than the 95% critical value (upper bounds), the model is having a good fit. The result shows that all the sample mean statistics are less than their respective 95% critical values. Thus, the result shows that the models have good fit and are correctly specified, and the estimates therefrom are valid for statistical inferences and generalizations.

Table 5. Model fitness.

Test results	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
R-square for BS	0.586	0.606	0.042	13.858	0.000
R-square for OP	0.471	0.506	0.062	7.622	0.000
R-square adjusted for BS	0.569	0.590	0.044	12.948	0.000
R-square adjusted for OP	0.446	0.482	0.065	6.876	0.000
Tests/Models	Original sample (O)	Sample mean (M)	95% critical value	99% critical value	Remark
SRMR					
Saturated model	0.090	0.066	0.074	0.078	Good fit
Estimated model	0.090	0.066	0.074	0.077	Good fit
d_ULS					
Saturated model	3.502	1.901	2.357	2.643	Good fit
Estimated model	3.500	1.897	2.374	2.598	Good fit
d_G					
Saturated model	1.358	0.783	1.005	1.115	Good fit
Estimated model	1.358	0.780	1.002	1.121	Good fit

Source: Results of field research.

Figure 1 displays the complete Bootstrap PLS-SEM result. It is the path diagram of the final model after removing the items with low (insignificant) outer loadings. The estimates include the t-statistics of the indicators (items), and the constructs. The path diagram summarily illustrates and confirms the results presented in tables.

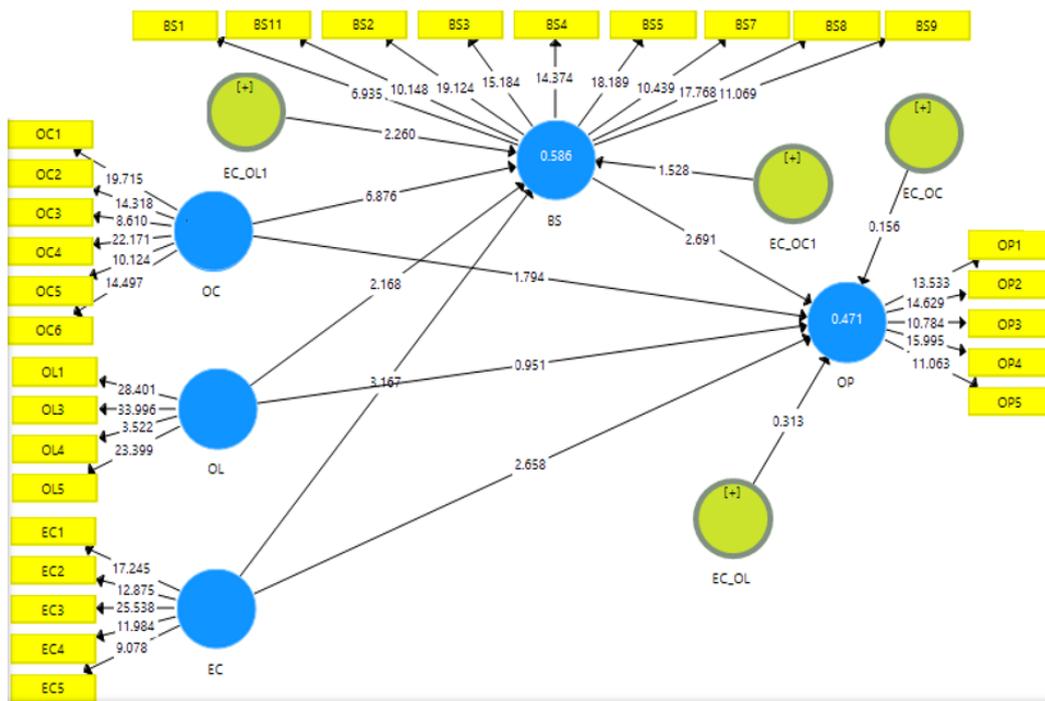


Figure 1. Path diagram.

Source: Results of field research.

## 5. DISCUSSION

This study investigated the effects of organisational culture and organisational learning on the performance of Congolese enterprises (SMEs). It also examined the mediating effects of business strategy on organisational performance, and the moderating effects of the cultural environment on business strategy and organisational performance. According to the study finding that ‘organisational culture and organisational learning affect organisational performance through their effect on business strategy’, the study suggests that the effects of organisational culture and learning are not directly felt in terms of organisational performance. The manifestation of organizational culture and learning is evident in organizational processes and employee productivity. Organisational culture and learning, which make employees committed and value-oriented, improve their productivity, which in turn improves the performance of the organisation. In addition, organisational culture and learning affect organisational performance through their influence on employee behaviour. Most importantly, companies that correctly align their business strategy with organisational culture and learning tend to create a competitive advantage, which in turn boosts organisational performance in the long run. This is consistent with the findings of several studies, as discussed in this study.

Furthermore, the results revealed that organisational culture and organisational learning do not have a direct positive effect on the organisational performance of SMEs in the DRC. However, the results indicate that organisational culture and learning have a direct positive effect on business strategy, and that companies business strategy positively influences their performance. This confirms that business strategy is the channel through which the effects of organisational culture and learning are transmitted to SME performance. Good organisational culture and organisational learning translate into better organisational performance by improving business strategy. In other words, business strategy fully mediates the effects of organisational culture and learning on the SMEs under consideration’s organizational performance.

A positive organizational culture and learning are essential for successful business strategy design and implementation, which leads to better performance. Organisational culture and learning are the driving forces behind the design and implementation of a successful business strategy. Thus, organisational culture and learning affect decision-making, interaction, and communication in the workplace. They affect the business strategy, which in turn influences the performance of the organisation. Organisational culture and learning significantly influence the socio-economic, political, and ethical principles that guide the functioning of SMEs. The result supports the findings of [Gasela \(2022\)](#) who finds that organisational culture does not directly contribute to organisational performance, but rather facilitates the implementation of business strategy. [Isac and Remes \(2018\)](#) also support those organisational values and norms that reinforce organisational strategy. Similarly, [Baird et al. \(2007\)](#) revealed that organisational culture and learning, strategy are mutually conditional, and each individual strategy corresponds to a specific organisational culture, and learning. The results are also consistent with several studies ([Bushardt et al., 2011](#); [Khan, Razzaq, Yu, & Miller, 2021](#); [Thompson Jr et al., 2007](#)) that share the view that an organisational culture conducive to alignment and implementation is a prerequisite for successful organisational performance.

On the other hand, the study indicates that the environmental culture has a positive and significant effect on business strategy and performance of SMEs in the DRC, and it only moderates the effect of organisational learning on business strategy.

Furthermore, the results of this study suggest that a good environmental culture among SMEs is vital for the development and implementation of a successful business strategy, ultimately the improvement of business performance. The findings confirm that environmental culture does not moderate the effect of organizational culture and learning on organizational performance. Similarly, environmental culture does not moderate the effect of organisational culture on business strategy. However, the results revealed that the effect of organisational learning on business strategy varies according to the nature of the environment. This implies that organisational

learning improves corporate strategy with more environmental culture than in a company with a poor environmental culture.

In the organizational environment, uncertainty and unpredictability affect the strengths and weaknesses of the firm. In other words, environmental changes affect both business opportunities and risks, and therefore business strategy and organisational performance. Therefore, a company must pay adequate attention to environmental information and adapt to changes in the environment. This is confirmed by [Miles and Snow \(1978\)](#) who identified environmental uncertainty as a critical aspect that companies need to take into account in order to adapt strategically to the environment. Therefore, companies that consistently conduct environmental studies to comprehend their established cultural environment can effortlessly incorporate this environment into their business strategy. In summary, environmental culture moderates the effect of organisational learning on business strategy. This is consistent with the findings of [Sisaye \(2005\)](#); [Liao \(2018\)](#), [Jane, Justus, and Francis \(2014\)](#) and [Akpoviroro and Owotutu \(2018\)](#) who submitted that environmental variations affect all aspects of organisations, and that organisational performance is profoundly affected by political, economic, technological, and socio-cultural environments.

## 6. CONCLUSION

One of the few studies on Congolese enterprises (SMEs) examines the performance of SMEs, the moderating effects of the cultural environment on business strategy and organizational performance, and the mediating effects of business strategy on organizational performance. This study makes a valuable contribution by empirically demonstrating the overall results, as detailed above. Moreover, the effects of all constructs and their components provide sufficient evidence of what previous studies have demonstrated over time. Having said this, further studies could deepen the reflection on the subject, contributing to the dynamic nature of science. Furthermore, organisational culture has a significant influence on the types of strategies that companies adopt. The study highlights at this stage that the importance of environmental practices in the corporate culture proves that environmental values exist in all companies (SMEs). This is in line with the findings of [Stock, Harmon, and Boyner \(2010\)](#) who state that these practices are an element of excellence in the management of the company and its environment.

The results of the study provide extensive empirical and managerial information. These results revealed that organisational culture and organisational learning do not have a direct positive effect on the organisational performance of SMEs in the DRC. The study also showed that organisational culture and learning have a direct positive effect on business strategy, and that the business strategy of firms positively influences their performance. In other words, the study confirms that business strategy mediates the link between organisational culture, learning, and SME performance in the Democratic Republic of the Congo. A good organisational culture and better organisational learning improve organisational performance by building on business strategy.

It appears therefore that business strategy is a complete mediator of the effects of organisational culture and learning on the organisational performance of the SMEs under consideration. Therefore, a favourable organisational culture and organisational learning are essential for the successful design and implementation of business strategy, which ipso facto leads to better SME performance. Furthermore, the driving forces behind the design and implementation of a successful business strategy are organizational culture and organizational learning. Therefore, organisational culture and learning affect decision-making, interaction, and communication in the workplace.

However, the results also revealed that the effect of organisational learning on business strategy varies according to the nature of the environment. This implies that organisational learning improves the business strategy of a company with a better environmental culture more than a company with a poor environmental culture. More importantly, the results of this study also confirm that environmental culture does not moderate the effect of

organisational culture and learning on organisational performance. Similarly, environmental culture does not moderate the effect of organisational culture on business strategy. However, they suggest that a good environmental culture among SMEs is vital for the development and implementation of a successful business strategy and, ultimately, for the improvement of business performance.

In essence, environmental culture moderates the impact of organisational learning on business strategy. This remains consistent with the findings of Sisaye (2005); Liao (2018); Jane et al. (2014), and Akpoviroro and Owotutu (2018), who submitted that environmental variations affect all aspects of organisations and that organisational performance is profoundly affected by political, economic, technological, and socio-cultural environments.

In order to improve the performance of SMEs in Democratic Republic of Congo, SMEs should strive to build a good organisational culture by providing a code of ethics, a vision, and a strategic orientation to all staff, by defining clear and consistent work values, and by training staff in crisis management. These measures will help to strengthen the organisational culture of SMEs and improve their performance. They should frequently organise internal capacity-building programmes for staff, provide incentives for staff to undertake external professional training, and encourage the sharing of knowledge and experience among staff. This is to promote organisational learning, which in turn will indirectly improve SME performance.

In addition, SMEs should study the cultural environment in which they are established and take into account local cultural values to facilitate cultural integration. This will create a favourable cultural environment, which is necessary for improving the performance of SMEs. To improve the business strategy, SMEs should produce high value, specialised and unique products for the target markets and motivate their employees. The government should also protect the interests of DR Congo's SMEs from excessive external (international) competition.

### 6.1. Limitations and Implications for Future Research

Indeed, the limitations of this study include online data collection due to lack of financial means and the time factor due to the COVID-19 pandemic, which had to disrupt multiple travel schedules related to multiple travel formalities, especially internationally; Also due to the aforementioned pandemic, the sample size was reduced due to non-updated email addresses; It would have been desirable for this questionnaire to be accompanied by a face-to-face interview, in order to obtain the necessary additional information.

### 6.2. Suggestions for Further Study

In order to obtain results that allow for broad conclusions to be drawn about the whole of the DRC, it is therefore recommended that future researchers work on a large sample that can include SMEs operating in other provinces of the DRC; have more complex data collection instruments, i.e., in addition to the questionnaire, plan direct interviews with respondents and have field teams send out the questionnaire and collect the responses; and have a little more time for fieldwork.

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**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Data Availability Statement:** Upon a reasonable request, the supporting data of this study can be provided by the corresponding author.

**Competing Interests:** The authors declare that they have no competing interests.

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