Research Article

The Role of Culture of Manager and Supply Cha in Management in Competitive Advantage with Innovation Capability as a Mediating Variable

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ARTICLE INFO	ABSTRACT
	Introduction: In the era of free trade, businesses must adopt strategies that enhance their value from the consumer's perspective to remain competitive. Competitive advantage is achieved when a company offers greater value than its costs, which can be influenced by organizational culture, supply chain management, and innovation. This study examines these factors in UMKM FOKUST, a small business group in Boyolali Regency, Indonesia that has received government support for growth and development. **Objectives:** The purpose of this research is to examine how Culture of Managers and Supply Chain Management affect Competitive Advantage with Innovation Capability as a Mediating Variable. **Methods:** This study included 30 UMKM FOKUST managers from Temon Village, Simo District, Boyolali Regency. This study's sample must meet these criteria: 1) administer UMKM FOKUST, Temon Village, Simo District, Boyolali Regency. 2) are in business for at least 3 years. This study employs regression and Sobel test using SPSS. **Results:** The data analysis shows that Supply Chain Management affects Innovation Capability, Manager Culture affects Sustainable Competitive Advantage, and Innovation Capability does not mediate this effect. **Conclusions:** Studying MSMEs' Supply Chain Management and Innovation Capability, unlike many studies that use major companies' objects. MSMEs' operations are affected by management culture. Efficiency is now part of the competitive advantage indicator. **Keywords:** Culture of Manager; Supply Chain Management; Innovation Capability; Sustainable Competitive Advantage.

INTRODUCTION

In the current environment of free trade, business entities have to develop methods that provide added value from the consumer's perspective. Consequently, business owners must differentiate themselves from their competition. Porter [1] Strategy involves establishing a unique and valued position by engaging in activities that differ from competitors or executing comparable tasks in a different method. This evaluated difference will facilitate the establishment of a competitive advantage.

According to Porter [1], competitive advantage fundamentally arises from the value a company generates for its customers that surpasses the costs spent in its formation. According to Porter [1], Barley and Hesterly [2] assert that a company has a competitive advantage when it generates greater economic value than its competitors. A company has a sustained competitive advantage when it generates greater economic value than marginal firms within its industry, and when other companies are unable to replicate the advantages of this strategy [3].

The culture of management can generate a sustainable competitive advantage. Organizational culture is characterized as a multidimensional combination of values, beliefs, assumptions, and symbols that determine a company's operational activity. In this regard, culture has an enormous impact on the organization, as it delineates the identities of its pertinent employees, customers, suppliers, and competitors, as well as the nature of the company's interactions with these key stakeholders.

Sustainable competitive advantage (SCA) can be affected by supply chain management (SCM), as demonstrated by research conducted by Afraza et al. [4], Amineh et al. [5], and Baah and Zhihong Jin [6], which indicates a positive and significant impact of SCM on SCA. The various research findings originate from the study conducted by Chacón Vargas et al. [7]. Their research categorized the implementation of SCM techniques into two components: the implementation of social practices and the implementation of environmental activities. The findings of their research

indicated that the adoption of environmental policies within the supply chain did not significantly impact the company's competitive advantage. Consequently, not all supply chain management practices have a positive and significant effect on competitive advantage.

Innovation may influence sustainable competitive advantage (SCA). Research conducted by Sulistyo & Ayuni [8], Chiu & Yang [9], and Quaye & Mensah [10] indicates that innovation has a positive and significant effect on competitive advantage. In the context of small and medium enterprises (SMEs), innovation capability has been found to have a positive and significant impact on sustainable competitive advantage (SCA), as highlighted in various studies [11] [8] [12]. Al Mamun et al. [13] presented many research findings indicating that the impact of micro-business innovation on competitive advantage is negative and insignificant, attributed to the reluctance of micro-business operators to undertake risks that could influence their performance.

Research on innovation, supply chain management, and competitive advantage is primarily conducted in major corporations due to their substantial resources (money, personnel, machinery). The presence of research and development in product innovation, investment in new machinery, and training for corporate advancement stands in sharp contrast to micro, small, and medium enterprises, which possess significantly constrained resources. Consequently, while there exists study on these variables in MSMEs, the findings remain varied. Consequently, researchers are focused on examining subjects inside MSMEs. This research focuses on MSME FOKUST business operators situated in Temon Village, Simo District, Boyolali Regency, and their quantity. The selection of UMKM FOKUST as the research subject is due to its establishment by Mr. Hanung, who was the sub-district head in Simo District, Boyolali Regency. Furthermore, numerous participants of UMKM FOKUST have received governmental assistance, including capital, equipment, and coaching for business development.

THEORETICAL BACKGROUND

Culture Of Manager

Resource-Based Value is a corporate performance framework that emphasizes the resources and capabilities held by the organization as a source of competitive advantage [2]. Barney [14] explicitly states that resources could provide a competitive advantage if they have four attributes: Valuable (V), Rare (R), Imperfectly Imitable (I), and Unique historical/Organizational (O), collectively referred to as VRIO. The culture of managers is characterized by unique historical and organizational factors.

In strategic management, culture serves as a source of sustainable competitive advantage for an organization. Corporate culture is a distinguishing quality that differentiates one firm from another. This is the reason certain companies achieve greater success than others. In SMEs, the culture of the owner or manager frequently determines the organizational culture.

Supply Chain Management

Nearly all corporate operations, particularly production activities, are inherently linked to supply chain management (SCM). Consequently, supply chain management is crucial for sustaining business continuity. According to Ivanov et al. [15], a supply chain (SC) is defined as a network of organizations and processes in which different organizations (suppliers, manufacturers, distributors, and retailers) collaborate and coordinate along the value chain to procure raw materials, convert these materials into designated end products, and distribute these products to consumers. According to Christopher [16] supply chain management (SCM) involves handling both upstream and downstream interactions with suppliers and customers to deliver enhanced customer value while minimizing costs across the whole supply chain. According to Stevenson [17], supply chain management is the strategic coordination of the supply chain aimed at combining supply and demand management, with an emphasis on managing relationships to get better outcomes for all stakeholders in the chain.

Innovation

Innovation is defined as an original idea that creates value and is crucial for enabling organizations to adapt to a dynamic business environment [18]. Modern economics regards innovation as a crucial determinant of sustained businesses growth; it is viewed as the sole viable means of maintaining competitiveness. Consequently, the main reason for corporate innovation is to secure a competitive advantage and enhance organizational performance [19]. This assertion has been

supported by the findings of study conducted by Sulistyo & Ayuni [8], Chiu & Yang [9], and Quaye & Mensah [10], which indicate that innovation exerts positive and significant effects on competitive advantage.

Sustainable Competitive Advantage

Competitive advantage fundamentally arises from the value a company generates for its customers that exceeds its expenses incurred in its creation [1]. Value is characterized by the price purchasers are prepared to pay, whereas excellent value entails offering a cheaper price than competitors for comparable benefits or delivering unique advantages that justify a higher price. Cost refers to the expenses associated with executing actions necessary for the creation of a product or service.

A company possesses a competitive advantage when it generates greater economic value than its competitors [2]. It was further emphasized that economic value is the difference between the advantages experienced by consumers who purchase the product or service. Consequently, a company's competitive measure is the difference between the economic value it can generate and the economic value its competitors can produce.

A company possesses a sustained competitive advantage when it generates greater economic value than the marginal firm within its industry, and when other firms are unable to replicate the advantages of this strategy [3].

HYPOTHESES DEVELOPMENT

In order to explain the research process, a conceptual framework will be given as follows:
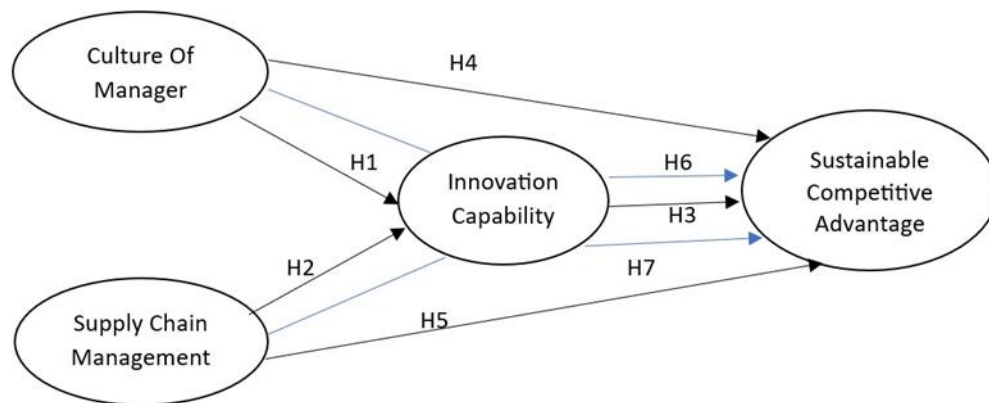

Figure 1. Conceptual Frame

The hypothesis in this research is as follows:

H1. The culture of managers has a significant effect towards Innovation Capability.

H2. Supply Chain Management has a significant effect towards Innovation Capability.

H3. Innovation Capability has a significant effect towards Sustainable Competitive Advantage.

H4. Culture of Manager has a significant effect towards Sustainable Competitive Advantage.

H5. Supply Chain Management has a significant effect towards Sustainable Competitive Advantage.

H6. Innovation Capability mediates the influence of Supply Chain Management towards Sustainable Competitive Advantage.

 H7. Innovation Capability mediates the influence of Supply Chain Management towards Sustainable Competitive Advantage which is mediated by Innovation Capability.

METHODS

This study aims to examine the impact Culture of Manager and Supply Chain Management on Competitive Advantage, with Innovation Capability serving as a mediating variable. This research is explanatory, focusing on UMKM players in FOKUST, Kalurahan Temon, Simo District, Boyolali Regency.

Population

The population of this study comprised all FOKUST UMKM participants in Temon Village, Simo District, Boyolali Regency, totaling 30 individuals in July 2024, hence the entire population was utilized as responders.

Measurement

This study employs three categories of variables: Independent factors (Culture of Manager, Supply Chain Management), Mediating variables (Innovative Capability), and Dependent variables (Sustainable Competitive Advantage). This study employs the Culture of Manager indicator, utilizing metrics from Ahmad et al. [20], which include manager control, manager commitment, continuity of ownership, and manager enrichment. The Supply Chain Management indicator includes metrics from Li et al. [21], specifically: Supplier partnership strategy, Customer relationships, Degree of information sharing, and Quality of information sharing.

Indicators of Innovation Capability are effective for assessing product innovation, process innovation, and market innovation, as stated by Alghanmi [22]. Metrics for product innovation include: creating products that exceed competitors, designing products that are distinct from market offerings, introducing unique products to enhance customer satisfaction, and producing innovative products for competitive advantage. Metrics for process innovation include: production process efficiency, delivery precision, and enhancements in logistics operations associated with delivery. Indicators of market innovation include: enhancements in product design, innovations in packaging, revisions of pricing strategies, adjustments to pricing methods for existing and/or new items, and updates to promotional activities.

SCA indicators include: cost leadership, differentiation, and responsiveness/flexibility. Alghanmi, 2020. Researchers incorporated an additional indicator, specifically efficiency. Respondents' responses were assessed utilizing a Likert scale ranging from 1 strongly disagree to 5: strongly agree.

Data Collection Method

The data collection method employed in this study included the distribution of questionnaire directly to respondents, as well as conducting interviews with the head of UMKM FOKUST and various members of UMKM FOKUST.

Data Analysis Method

This study involved data analysis conducted in many phases: 1) testing the research instrument, 2) classical assumption tests, 3) Linear Regression Analysis I, 4) Linear Regression Analysis II, and 5) Sobel Test. The analytical software employed is SPSS 26.

RESULTS AND DISCUSSIONS

Respondent Profile

Table I. Respondent Profile

	Respondent Profile	Frequency	Percentage (%)
Gender	Male	3	10
	Female	27	90
Age	25 - 30 years	3	10
	31 - 35 years	1	3,33
	37 - 42 years	4	13,3
	43 - 48 years	7	23,3
	49 - 54 years	11	36,6
	55 - 60 years	4	13,3
Status in MSMEs	Pemilik	6	20
	Pengelola	3	10
	Pemilik dan Pengelola	21	70
	1 - 2 years 11 months	3	10

Length of Business	3 - 4 years 11 months	2	6,67
	5 - 6 years 11 months	5	16.67
	7 - 8 years 11 months	8	25.67
	Lebih dari 9 years	12	40
Type of Business	Food	9	30
	Snacks	8	26,67
	Food Stalls	6	20
	Agriculture	2	6,67
	Grocery Stores	1	3.33
	Aquarium Accessories	1	3.33
	Groceries	1	3.33
	Rice	1	3.33
	Radiators	1	3.33
Total assets excluding land and buildings	< Rp 50 million	27	90
	Rp 50 million – Rp 500 million	3	10
Types of IT used	HP	26	86,67
	HP and Computer	3	10
	HP and ATM Machine	1	3,33
Ca Methods of Selling	Direct Sales	20	66,67
	Facebook	7	23,33
	Facebook, Gofood	1	3,33
	Facebook, Instagram	1	3.33
	Facebook, Instagram, WA Business	1	3.33

Source: Data processed by SPSS 26 (2024)

The highest proportion of female respondents is 90%. The majority of responders, constituting 36.6%, are aged between 49 and 54 years. According to the status inside MSMEs, the majority of respondents, constituting 70%, are MSME owners and managers. According to the length of business operations, the majority of respondents, constituting 40%, have been in business for over 8 years. The majority of responders, constituting 30%, are engaged in the food industry. The majority of respondents, at 90%, belong into the micro business category, with assets valued at less than Rp 50 million, excluding land and buildings. 86.67% of respondents primarily utilize mobile phones to manage their enterprises. The primary sales approach employed by respondents is direct sales to customers, accounting for 66.67%.

The Validity Test

The validity test for Culture of manager Variable (X1)

Table II. The validity test for Culture of Manager Variable (X1)

The Questionnaire Items	$\rho\text{-value}$	Criteria	Results
X1.1	0,008	α = 0,05	Valid
X1.2	0,000	α = 0,05	Valid
X1.3	0,000	α = 0,05	Valid

X1.4	0,000	α = 0,05	Valid
X1.5	0,000	α = 0,05	Valid
X1.6	0,000	α = 0,05	Valid
X1.7	0,000	α = 0,05	Valid
X1.8	0,000	α = 0,05	Valid

Source: Processed Primary Data (2024)

The validity test for Culture of manager findings for the Culture of Manager variable indicate that the questionnaire items X1.1 to X1.8 yielded a significant value <0.05, confirming the validity of all items in the Culture of Manager questionnaire.

The validity test for Supply Chain Management Variable (X2)

Table III. The validity test for Supply Chain Management Variable (X2)

The Questionnaire Items	ρ-value	Criteria	Results
X2.1	0,001	α = 0,05	Valid
X2.2	0,000	α = 0,05	Valid
X2.3	0,000	α = 0,05	Valid
X2.4	0,000	α = 0,05	Valid
X2.5	0,000	α = 0,05	Valid
X2.6	0,000	α = 0,05	Valid
X2.7	0,000	α = 0,05	Valid
X2.8	0,000	α = 0,05	Valid
X2.9	0,000	α = 0,05	Valid
X2.10	0,000	α = 0,05	Valid
X2.11	0,000	α = 0,05	Valid
X2.12	0,000	α = 0,05	Valid

Source: Processed Primary Data (2024)

The validity test results for the questionnaire items X2.1 to X2.12 yielded a significant value < 0.05, indicating that all items of the Supply Chain Management variable questionnaire are valid.

The validity test for *Innovation Capability Variable (Z)*

Table IV. The validity test for *Innovation Capability Variable (Z)*

The Questionnaire Items	ρ-value	Criteria	Results
Z.1	0,000	α = 0,05	Valid
Z.2	0,000	α = 0,05	Valid
Z.3	0,000	α = 0,05	Valid
Z.4	0,000	α = 0,05	Valid
Z.5	0,004	α = 0,05	Valid
Z.6	0,010	α = 0,05	Valid
Z.7	0,003	α = 0,05	Valid
Z.8	0,000	α = 0,05	Valid
Z.9	0,000	α = 0,05	Valid
Z.10	0,000	α = 0,05	Valid

Source: Processed Primary Data (2024)

The validity test results for the questionnaire items Z.1 to Z.10 yielded a significant value of 0.000, which is < 0.05, indicating that all items of the Innovation Capability (Z) variable questionnaire are valid.

The validity test for Sustainable Competitive Advantage Variable (Y)

Table V. The validity test for Sustainable Competitive Advantage Variable (Y)

The Questionnaire Items	ρ-value	Criteria	Results
Y.1	0,000	α = 0,05	Valid
Y.2	0,000	α = 0,05	Valid
Y.3	0,000	α = 0,05	Valid
Y.4	0,000	α = 0,05	Valid
Y.5	0,000	α = 0,05	Valid
Y.6	0,000	α = 0,05	Valid
Y.7	0,000	α = 0,05	Valid
Y.8	0,001	α = 0,05	Valid
Y.9	0,000	α = 0,05	Valid
Y.10	0,000	α = 0,05	Valid
Y.11	0,000	α = 0,05	Valid
Y.12	0,000	α = 0,05	Valid

Source: Processed Primary Data (2024)

The test findings for the questionnaire questions Y.1 to Y.12 yielded a significance value of 0.000, which is l< 0.05, indicating that all items of the Sustainable Competitive Advantage variable questionnaire are valid.

The Reliability Test

The Reliability test for Culture of manager Variable (X1)

Table VI. The Reliability test for Culture of Manager Variable (X1)

Reliability Statistics	
Cronbach's Alpha	N of Items
.840	8

Source: Processed Primary Data (2024)

The Reliability Test findings indicate that the Cronbach's alpha value for the Culture of Manager variable (X1) is 0.840, over the threshold of 0.60, therefore confirming the reliability of the questionnaire for the Culture of Manager variable (X1).

The Reliabilitas test for Supply Chain Management Variable (X2)

Table VII. The Reliability test for Supply Chain Management Variable (X2)

Reliability Statistics	
Cronbach's Alpha	N of Items
.800	12

Source: Processed Primary Data (2024)

The Cronbach's alpha score for the Supply Chain Management variable (X2) is 0.800, over the threshold of 0.60, indicating that the questionnaire for this variable is reliable.

The Reliability test for *Innovation Capability Variable (Z)*

Table VIII. The Reliability test for *Innovation Capability Variable (Z)*

Reliability Statistics	
Cronbach's Alpha	N of Items
.914	10

Source: Processed Primary Data (2024)

The Cronbach's alpha value for the Innovation Capability variable (Z) is 0.914, which exceeds 0.60, indicating that the questionnaire for the Innovation Capability variable (Z) is reliable.

The Reliability test for Sustainable Competitive Advantage Variable (Y)

Table IX. The Reliability test for Sustainable Competitive Advantage Variable (Y)

Reliability Statistics	
Cronbach's Alpha	N of Items
.859	12

Source: Processed Primary Data (2024)

The Cronbach's alpha value for the Sustainable Competitive Advantage variable (Y) is 0.859, exceeding 0.60, indicating that the questionnaire for this variable is reliable.

Classical Assumption Tests

The multicollinearity test results indicate that the tolerance values for the variables are as follows: X1 (Culture of Manager) = 0.807, X2 (Supply Chain Management) = 0.389, and Z (Innovation capability) = 0.449, all exceeding 0.10. The corresponding VIF values are X1 (Culture of Manager) = 1.240, X2 (Supply Chain Management) = 2.568, and Z (Innovation capability) = 2.230, all below 10. This signifies the absence of multicollinearity, indicating that the regression model successfully passes the multicollinearity test. The autocorrelation test findings indicate p-value of Asymp. Sig. (2-tailed) = 0.853, which exceeds 0.05, indicating an insignificant condition and the absence of autocorrelation.

The heteroscedasticity test results indicate that the p-value for variable X1 (Culture of Manager) is 0.041, which is less than 0.05; for X2 (Supply Chain Management), the p-value is 0.213, which exceeds 0.05; and for Z (Innovation capability), the p-value is 0.040, also < 0.05. Thus, both X1 and Z demonstrate significance, while X2 does not. This indicates that there is evidence of heteroscedasticity, as the heteroscedasticity test is not passed. The normality test findings provide a p-value (significant) of Monte Carlo Sig. (2-tailed) = 0.296, which exceeds 0.05, indicating that the residuals are normally distributed (pass the normality test).

Regression Analysis I

Multiple Linear Regression Analysis 1

Regression Equation: $Z = a + b_1X_1 + b_2X_2 + e$
Z= dependent variable, namely Innovation capability
a= constant/fixed value, namely the amount of Y if X=0
b1= regression coefficient of variable X1: shows the magnitude of the influence of X1 on Z
b2= regression coefficient of variable X2: shows the magnitude of the influence of X2 on Z
X1= Independent variable: Culture of Manager
X2= independent variable: Supply Chain Management

Table X. Multiple Linear Regression Analysis 1

Coefficients[a]						
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	15.269	7.907			1.931	.064

Culture of Manager	-.160	.244	-.094	-.658	.516
Supply Chain Management	.609	.111	.778	5.462	.000

a. Dependent Variable: *Innovation capability* (Z)

Source: Processed Primary Data (2024)

The table above obtained the Regression Equation:

Y = 15.269 − 0.160 X1 + 0.609 X2 + e

The interpretation of the regression equation above is:

a = 15.269 (positive)

If X1 (Culture of Manager) and X2 (Supply Chain Management) are constant, then Z (Innovation capability) is positively correlated.

b1= − 0.160 Culture of Manager has a negative effect on Innovation capability

meaning: if Culture of Manager increases then Z (Innovation capability) will decrease, assuming the variable if X2 (Supply Chain Management) is constant/fixed.

b2= 0.609 Supply Chain Management has a positive effect on Innovation capability

meaning: if Supply Chain Management increases then Z (Innovation capability) will increase, assuming the variable if X1 (Culture of Manager) is constant/fixed.

T-1 Test

The t-test aims to assess the significance of the impact of independent variables on dependent variables in a partial manner. Established α (significance level) = 0.05 (5%).

Table XI. T-1 Test

Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	15.269	7.907		1.931	.064
Culture of Manager	-.160	.244	-.094	-.658	.516
Supply Chain Management	.609	.111	.778	5.462	.000

a. Dependent Variable: *Innovation capability* (Z)

Source: Processed Primary Data (2024)

a.   Variable X1 (Managerial Culture) t-Test

The p-value (significance) is 0.516, which is more than 0.05; therefore, H0 is accepted, indicating that the Manager's Culture has no significant effect on Innovation capability.

Conclusion: Hypothesis 1, which states that managerial culture significantly influences innovation capability, is not supported.

b.   Variable X2 (Supply Chain Management) t-Test

The ρ-value (significance) is 0.000, which is less than 0.05; therefore, H0 is rejected and Ha is accepted, indicating that Supply Chain Management has a significant effect on Innovation Capability.

Conclusion: The hypothesis H2, which states that Supply Chain Management has a substantial impact on Innovation capability, is supported.

Model Accuracy Test (F Test)

The F test examines the validity of the independent variable influence model, specifically the impact of X1 (Managerial Culture) and X2 (Supply Chain Management) on the dependent variable Innovation Capability (Z).

Table XII. Model Accuracy Test (F Test)

ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	859.143	2	429.571	16.599	.000[b]

Residual	698.724	27	25.879
Total	1557.867	29	

a. Dependent Variable: *Innovation capability* (Z)

b. Predictors: (Constant), *Supply Chain Management* (X2), *Culture of Manager* (X1)

Source: Processed Primary Data (2024)

The ANOVA table findings indicate that the regression model has a calculated F value of 16.599 and a significance value (p-value) of 0.000, which is less than 0.05. Thus, Ho is rejected and Ha is approved, indicating that the model accurately predicts the influence of X1 (Culture of Manager) and X2 (Supply Chain Management) on the dependent variable Innovation Capability (Z).

Coefficient of Determination Test (R^2)

Analysing the degree to which the independent variable influences the dependent variable is the goal of the determination coefficient test.

Table XIII. Coefficient of Determination Test (R^2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743[a]	.551	.518	5.087

a. Predictors: (Constant), *Supply Chain Management* (X2), *Culture of Manager* (X1)

Source: Processed Primary Data (2024)

The findings indicate that the adjusted coefficient of determination (R^2) for this model is 0.518, signifying that the independent variables X1 (Culture of Manager) and X2 (Supply Chain Management) contribute to 51.8% of the variance in Z (Innovation capability). The remaining 48.2% (100% - 51.8%) is attributed to characteristics external to the model, including information technology capability, information technology infrastructure, and training.

Regression Analysis II

Multiple Linear Regression Analysis II

Regression Equation: Y = a + b1X1 + b2X2 + b3X3 + b4Z + e

Y = dependent variable: Sustainable Competitive Advantage

a = constant/fixed value: the amount of Y if X = 0

b1 = regression coefficient of variable X1: the amount of influence of X1 on Y

b2 = regression coefficient of variable X2: the amount of influence of X2 on Y

b3 = regression coefficient of variable Z: the amount of influence of Z on Y

X1 = Independent variable: Culture of Manager

X2 = independent variable: Supply Chain Management

Z = independent variable: Innovation capability

E = error/confounding variable: other variables that affect Y but are not studied.

Table XIV. Multiple Linear Regression Analysis II

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	10.900	8.131		1.341	.192
Culture of Manager (X1)	.841	.237	.575	3.553	.001
Supply Chain Management (X2)	-.011	.156	-.016	-.069	.945
Innovation capability (Z)	.219	.185	.256	1.181	.248

a. Dependent Variable: *Sustainable Competitive Advantage* (Y)

Source: Processed Primary Data (2024)

The table above obtained the Regression Equation:

Y = 10.900 + 0.841 X1 - 0.011 X2 + 0.219 Z + e

The interpretation of the regression equation above is:

a= 10.900 (positive), indicating that if X1 (Culture of Manager), X2 (Supply Chain Management) and Z (Innovation capability) are constant then Y (Sustainable Competitive Advantage) is positive.

b1= 0.841 Culture of Manager has a positive effect on Sustainable Competitive Advantage, meaning that if Culture of Manager increases then Y (Sustainable Competitive Advantage) will increase, assuming variables X2 (Supply Chain Management) and Z (Innovation capability) are constant/fixed.

b2= - 0.011 Supply Chain Management has a negative effect on Sustainable Competitive Advantage, meaning that if Supply Chain Management increases/gets better then Y (Sustainable Competitive Advantage) will decrease, assuming variables X1 (Culture of Manager) and Z (Innovation capability) are constant/fixed.

b3= 0.219 Innovation capability has a positive effect on Sustainable Competitive Advantage, meaning that if Innovation capability increases then Y (Sustainable Competitive Advantage) will increase, assuming variables X1 (Culture of Manager) and X2 (Supply Chain Management) are constant/fixed.

T-II Test

The t-test aims to assess the significance of the impact of independent variables on dependent variables in a partial manner. Established α (significance level) = 0.05 (5%)

Table XV. t-II Test

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	10.900	8.131		1.341	.192
Culture of Manager (X1)	.841	.237	.575	3.553	.001
Supply Chain Management (X2)	-.011	.156	-.016	-.069	.945
Innovation capability (Z)	.219	.185	.256	1.181	.248
a. Dependent Variable: *Sustainable Competitive Advantage* (Y)					

Source: Processed Primary Data (2024)

a.   Variable X1 (Culture of Manager) t-Test

Obtained ρ-value (significance) = 0.001 < 0.05 then H0 is rejected and Ha is accepted meaning that Culture of Manager has a significant effect on Sustainable Competitive Advantage

Conclusion: H3 which states that Culture of Manager has a significant effect on Sustainable Competitive Advantage is supported.

b.   Variable X2 (Supply Chain Management) t-Test

The ρ-value (significance) is obtained = 0.945 > 0.05 then H0 is accepted meaning that Supply Chain Management has no significant effect on Sustainable Competitive Advantage

Conclusion: H4 which states that Supply Chain Management has a significant effect on Sustainable Competitive Advantage is not supported.

c.   Variable Z (Innovation capability) t-Test

The ρ-value (significance) is obtained = 0.248 > 0.05, then H0 is accepted, meaning that Innovation capability has no significant effect on Sustainable Competitive Advantage

Conclusion: H5 which states that Innovation capability has a significant effect on Sustainable Competitive Advantage is not supported.

Model Accuracy Test (F TEST) – II

The F test examines the validity of the influence model of the independent variables X1 (Culture of Manager), X2 (Supply Chain Management), and Z (Innovation Capability) on the dependent variable Sustainable Competitive Advantage (Y).

Table XVI. Model Accuracy Test (F TEST) -II

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	514.759	3	171.586	7.137	.001^b
	Residual	625.107	26	24.043		
	Total	1139.867	29			

a. Dependent Variable: *Sustainable Competitive Advantage* (Y)

b. Predictors: (Constant), *Supply Chain Management* (X2), *Culture of Manager* (X1), *Innovation capability* (Z)

Source: Processed Primary Data (2024)

The ANOVA table results indicate that the regression model has a computed F value of 7.137 and a significance value (p-value) of 0.001, which is less than 0.05. Thus, Ho is rejected whereas Ha is approved, indicating that the model accurately predicts X1 (Culture of Manager), X2 (Supply Chain Management), and Z (Innovation Capability) in relation to the dependent variable Sustainable Competitive Advantage (Y).

Coefficient of Determination Test (R^2)-II

Table XVII. Coefficient of Determination Test (R^2)-II

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672^a	.452	.388	4.903

a. Predictors: (Constant), *Supply Chain Management* (X2), *Culture of Manager* (X1), *Innovation capability* (Z)

Data Source: Processed Primary Data, 2024

The findings indicate that the adjusted coefficient of determination (R2) for this model is 0.388, indicating that the independent contributions of X1 (Culture of Manager), X2 (Supply Chain Management), and Z (Innovation Capability) to Y (Sustainable Competitive Advantage) account for 38.8%. The remaining 61.2% (100% - 38.8%) is attributed to characteristics external to the model, including business duration and age.

Sobel Test

The influence of X1 (Culture of Manager) towards Y (Sustainable Competitive Advantage) with Z (Innovation capability) as an intervening (mediating) variable

The Sobel Test analysis yielded a t count of -0.461, which is greater than the t table value of -2.05183 (for the left side at 0.025; 27). Consequently, the null hypothesis (Ho) is accepted, indicating that Z (Innovation capability) does not mediate the relationship between X1 (Culture of Manager) and Y (Sustainable Competitive Advantage). Therefore, H6, which indicates an influence of X1 (Culture of Manager) on Y (Sustainable Competitive Advantage) with Z (Innovation capability) as a mediating variable, is not supported.

The influence of X2 (Supply Chain Management) towards Y (Sustainable Competitive Advantage) with Z (Innovation capability) as an intervening (mediating) variable.

The results of the Sobel Test analysis obtained a t count of 1.140 < t table (0.025; 27) = 2.05183 (right side) thus, Ho is accepted. It can be concluded that Z (Innovation capability) does not mediate the relationship between X2 (Supply Chain Management) and Y (Sustainable Competitive Advantage), thus H7, which posits an influence of X2 (Supply Chain Management) on Y (Sustainable Competitive Advantage) with Z (Innovation capability) as a mediating variable, is not supported.

IMPLEMENTATION AND CONCLUSION

Managerial Implementation

The necessity of sustainable competitive advantage is pronounced in the current era of unrestricted competition. This research aims to examine the impact of managerial culture and supply chain management on sustainable competitive advantage, with innovation capability serving as a mediating variable. The findings of this study are highly beneficial for business entities, particularly MSMEs, in enhancing their capacity to attain Sustainable Competitive Advantage,

specifically regarding the Managerial Culture variable [14], the Supply Chain Management variable ([4]; [5]; [6]), and the Innovation variable [19].

Conclusion

The study's findings suggest that managerial culture does not significantly influence innovation capability; nonetheless, this does not imply that managerial culture is unimportant in fostering innovation capability. The findings of this study emerged due to the majority of business participants at UMKM FOKUST, aged 39-54 years, who showed an unwillingness to innovate. The study's results indicated that Supply Chain Management significantly influences Innovation Capability, demonstrating that customer relationships and the willingness to exchange quality information enhance innovation capacity. The study's findings indicated that Innovation Capability did not significantly impact SCA, confirming the research by Al Mamun et al. [13], which asserted that the relationship between micro company innovation and competitive advantage is both negative and inconsequential. This occurs when micro business operators exhibit a lower propensity for risk-taking that impacts their success. Innovation Capability does not reduce the impact of Managerial Culture or Supply Chain Management on Sustainable Competitive Advantage.

The findings of this study indicate that managerial culture significantly influences SCA, thereby confirming the RBV theory, which states that resources, including culture, can serve as a source of competitive advantage due to the uniqueness of an organization's managerial culture compared to others. This study's findings are consistent with previous research [23], which indicates that the active involvement of top management plays a crucial role in enhancing the alignment of competitive processes and strengthening the flexibility capabilities of SMEs.

This study also finds that SCM does not significantly influence SCA, corroborating the findings of Chacón Vargas et al. [7]. In their research, the scholars classified supply chain management (SCM) practices into two key areas: social and environmental implementation. The results of their study suggest that integrating environmental practices within the supply chain does not significantly contribute to a firm's competitive advantage. It asserts that not all supply chain management practices show positive and significant influence on competitive advantage.

Limitations and future research

This study mainly examined UMKM FOKUST participants in Temon Village, Simo District, Boyolali Regency, with a total of 30 respondents. Additional research may be undertaken with a larger sample size to validate ideas that were not substantiated in this study. This study primarily examines the sustainable competitive advantage of the factors Managerial Culture, Supply Chain Management, and Innovation; future research might include additional variables.

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