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Can Internal, Cultural and Personal Factors Create A Culture of Innovation in SME in The Province of North Sulawesi? (Learning From COVID-19)

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ABSTRACT

Many researches prove that SMEs (Small Medium Enterprises or SMEs) are the pillars of an economy. SMEs absorb a lot of labor and have a significant contribution to the economic growth of a country and region. SMEs also have a very large number and are spread in every existing business sector, so SMEs receive serious attention from both academics, researchers and the government. This study has a specific purpose, namely to analyze and test the influence of perceived difficulties, responses to difficuties, open-mindedness culture, creativity as well as adaptive ability), Individualism, power distance, uncertainty avoidance and masculinity / femininity), learning Capability (LC), Intellectual capital, Knowledge management, social network) on innovation culture, which is an aspect of originality or novelty in this study. This study used a sample of SMEs in North Sulawesi Province and used multiple regression analysis techniques. The results of the analysis show that perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5) have a significant effect (below 5%) on Innovation culture. The results of the analysis show that Learning Capability (LC) (X6), Intellectual capital (X7), Knowledge management (X8), social network (X9) have a significant effect (below 5%) on Innovation culture. The analysis results show that Individualism (X10), uncertainty avoidance (X12) and masculinity / femininity (X13) have a significant effect (below 5%) on the culture of innovation. However, the power distance variable (X11) does not significantly affect the culture of innovation. The results of the analysis show that the influence of perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5) has a significant effect (below 5%) on innovation culture, remains significant even though it has been controlled for aspects of the owner's age, ethnicity and business age. The results of testing the effect of internal factors (Learning Capability (LC) (X6), Intellectual capital (X7), Knowledge management (X8), social network (X9) on innovation culture (Y), show different results specifically on the Learning Capability (LC) variable (X6), where when controlled for aspects of ethnicity and business age, this variable becomes insignificant on innovation culture. For the results of testing the effect of cultural cultural factors (Individualism (X10), power distance (X11), uncertainty avoidance (X12) and masculinity / femininity (X13) on innovation culture (Y), with variable control of owner age, ethnicity and business age, no impact on innovation culture.

1. Introduction

Many researches prove that SMEs (Small Medium Enterprises or SMEs) are the pillars of an economy. SMEs absorb a lot of labor and have a significant contribution to the economic growth of a country and region. SMEs also have a very large number and spread in every existing business sector, so SMEs get serious attention from both academics, researchers and the government. Research results also found that many SMEs survive through various crises or difficulties, one of which is COVID-19. Many factors affect the survival rate of these SMEs, and one of them is the innovation culture. SMEs

that have a culture of innovation in the Covid-19 interval, will continue to exist until now and some are even growing with high sales volumes and business diversification. Based on the results of previous research, it was found that the factors that influence innovation culture are internal, cultural and personal factors. This study will examine the influence of these three factors on the culture of innovation in SMEs in North Sulawesi Province. The three factors are based on the idea that what shapes the culture of innovation is a complex factor involving internal aspects of the business, cultural and personal aspects within the business. Many previous studies did not comprehensively involve these three factors. For personal factors are perceived difficulties, responses to difficulties, open-mindedness culture, creativity and adaptive ability), cultural factors (Individualism, power distance, uncertainty avoidance and masculinity / femininity and internal factors are Learning Capability (LC), Intellectual capital, Knowledge management, social network). This model is also combined with various classifications or groupings of respondents, namely groupings based on owner age, business age, ethnic origin and firm size of SMEs. With modeling like this, the research results will be more specific so as to get research that has high originality or high novelty.

In this study, the problem formulations to be tested are: (1) Do personal factors (perceived difficulties, responses to difficuties, open-mindedness culture, creativity and adaptive ability) affect the culture of innovation? (2) Do cultural factors (individualism, power distance, uncertainty avoidance and masculinity / femininity) affect the culture of innovation ? (3) Do internal factors (Learning Capability (LC), Intellectual capital, Knowledge management, social network). affect the culture of innovation? (4) Does grouping or classification based on owner age, business age, ethnic origin and firm size have a different impact on the influence of personal, cultural and internal factors on innovation culture. This study has a specific purpose, namely to analyze and test the influence of perceived difficulties, responses to difficuties, open-mindedness culture, creativity and adaptive ability), Individualism, power distance, uncertainty avoidance and masculinity / femininity), learning Capability (LC), Intellectual capital, Knowledge management, social network) on innovation culture. The urgency of this research is that this research will contribute to the factors that form a culture of innovation that can cause SMEs to exist and develop sustainably, which the results of this study can be adopted for other SMEs in forming a sustainable culture of innovation.

2. Method

This study uses association or confirmative research design, which is a research design that aims to test the relationship or influence between two or more variables. The population in this study were all SME voters in North Sulawesi. For sampling techniques using accidental sampling, with a sample size of 50 SMEs. The data in this study is interval data with primary and secondary data sources.

Table 1. Operational Definition

Dimension	Variables	Indicators
Personal Factors	Difficulties perceived(X1)	• Complexity Acceptance is the ability to accept the complexity of doing business. • Complexity solution is the ability to find solutions to complex business problems. • Adversity Acceptance is the ability to accept difficulties in doing business. • Difficulty solution is the ability to get out of the difficulties faced in doing business.
	Responses to difficulties (X2)	• Vigilance is mental readiness in the face of adversity • Not giving up is a response that continues to face difficulties. • Solution-oriented is a response that focuses on finding the best business solution. • Dealing with stress is a response that considers stress as a normal thing in business.
	open-mindedness culture	• Facing change is the courage to face business change. • Positive thinking is the ability to accept the beneficial side of an action.

Dimension	Variables	Indicators
	(X3)	• The value of new information is the ability to appreciate any new information obtained. • The value of taking risks is the courage to make decisions under conditions of uncertainty.
	Creativity (X4)	• Open to new experiences • Flexibility in thinking • Freedom in self-expression • Fantasy appreciation
	Adaptive ability (X5)	• Communication is the ability to communicate with many people effectively • Self direction is the ability to manage one's own abilities • Socialization is the ability to interact with others • Locomotion is the ability to move others towards a desired goal.
Internal Factors	Learning Capability(LC) (X6)	• Diagnosis is the ability to determine employee development needs • Knowledge is the ability to improve personal competence • Speed of learning is the ability to quickly identify existing problems and find solutions. • Sharing ability is the ability to communicate valuable past experiences to the organization.
	Intellectual Capital (X7)	• Value creation is a person's ability to create organizational value through the tasks under their authority. • Sustainable revenue is a person's ability to create sustainable profits in their business. • Interpersonal relationship is the ability of someone who is able to always maintain a good relationship with their employees. • Internal procedures is the ability to develop internal business procedures that create value for the company.
	Knowledge management (X8)	• Knowledge creation is a person's ability to create new knowledge in business. • Knowledge transfer is the ability to effectively share one's knowledge with others. • The use of knowledge is a person's ability to use the knowledge they have in solving their business problems. • Knowledge storage is a person's ability to create an information database to be used in creating new knowledge in the future.
	Learning social network (X9)	• Relationship with business partners is the quality of good relationships with business partners • Relationship with consumers is the quality of good relationships with consumers • Social media is the ability to use social media platforms to interact with consumers. • Relationship with government is the quality of good relationship with local government.
Cultural factors	Individualism (X10)	• Freedom of choice is a person's high degree of freedom in making choices. • Personal responsibility is a person's high level of personal responsibility. • Personal autonomy is a person's level of independence.

Dimension	Variables	Indicators
		• Self-confidence is a person's high level of self-confidence
	Power distance (X11)	• Interacting with local officials is the ability to interact with local officials. • Hierarchy is the ability to interact regardless of hierarchy or position in society. • Social strata is an interaction that does not see social status. • Wise is the wisdom in using the power that is owned.
	Uncertainty avoidance (X12)	• Environmental intimidation is a person's endurance due to uncertain future environmental pressures. • Environmental risk tolerance is a person's level of tolerance for environmental risks that occur. • Proactivity is one's ability to actively identify the possibility of a risk arising in the future. • Diversification is one's ability to diversify the risks that have been previously mapped.
	Masculinity / feminimity (X13)	• Honesty is the ability to communicate honestly. • Dominance is the trait of someone who always wants to dominate or appear dominant. • Independence is the ability to act autonomously. • Responsibility is the nature of a person who always does the best for the responsibility given.
Innovation culture		• Innovation intention is a high desire of a person to innovate in business. • Innovation infrastructure is the completeness of facilities and infrastructure supporting innovation in business • Innovation influence is the intensity of the impact of innovation on business sustainability • Innovation implementation is the consistency of the innovation implementation system in business.

The analysis technique used is simple and multiple regression using the STATA / SPSS data processing application or software.

3. Results and Discussion

3.1 Validity and Reliability Test

The results of the analysis for the validity and reliability tests of the indicators and variables used show that all indicators in measuring variables are valid (see attachment) because they have a significant correlation below 5%, while the reliability figures shown by alpha crombath also produce figures above 0.6 which indicates that all indicators are reliable. (see attachment).

3.2. Description of Research Variables

For a description of the indicators of the variables used in the study can be seen in the table below:

Table 2. Descriptive statistics of research variable indicators

	N	Minimum	Maximum	Mean	Std. Deviation
x11	69	1.00	5.00	3.6957	.89614
x12	69	1.00	5.00	3.8406	.83355
x13	69	1.00	5.00	3.7246	.82040
x14	69	1.00	5.00	3.7536	.84724

	N	Minimum	Maximum	Mean	Std. Deviation
x21	69	1.00	5.00	3.8406	.94904
x22	69	1.00	5.00	4.0725	.86294
x23	69	1.00	5.00	4.0725	.91264
x24	69	1.00	5.00	3.8261	1.01397
x31	69	3.00	5.00	3.9710	.74697
x32	69	3.00	5.00	4.0435	.73634
x33	69	3.00	5.00	4.3623	.54154
x34	69	2.00	5.00	3.8986	.71011
X41	69	3.00	5.00	4.1739	.74669
x42	69	2.00	5.00	3.6812	.81336
x43	69	2.00	5.00	3.6812	.79507
x44	69	2.00	5.00	4.3768	.72965
x51	69	2.00	5.00	3.8986	.75039
x52	69	3.00	5.00	3.7971	.73923
x53	69	2.00	5.00	3.9275	.73402
x54	69	2.00	5.00	3.6957	.79158
x61	69	2.00	5.00	3.5072	.86811
x62	69	2.00	5.00	3.8696	.72585
x63	69	2.00	5.00	3.8841	.83201
x64	69	2.00	5.00	3.7101	.76891
x71	69	2.00	5.00	3.5942	.69280
x72	69	2.00	5.00	3.7246	.74526
x73	69	2.00	5.00	4.1449	.71281
x74	69	3.00	5.00	3.8986	.66741
x81	69	1.00	5.00	3.8841	.77718
x82	69	1.00	5.00	3.8116	.75294
x83	69	1.00	5.00	3.7971	.83278
x84	69	1.00	5.00	3.5072	.85101
X91	69	2.00	5.00	3.9420	.76474
x92	69	3.00	5.00	4.1159	.71817
x93	69	3.00	5.00	4.2029	.69831
x94	69	1.00	5.00	3.6232	1.01607
x101	69	2.00	5.00	4.0435	.77526
x102	69	3.00	5.00	4.2174	.74497
x103	69	3.00	5.00	4.1014	.75039
x104	69	2.00	5.00	3.7826	.83788
x111	69	2.00	5.00	3.5507	.84950
x112	69	3.00	5.00	4.0145	.75718
x113	69	3.00	5.00	4.3478	.68226
x114	69	3.00	5.00	3.6667	.77964
x121	69	2.00	5.00	3.7826	.85525
x122	69	2.00	5.00	4.0580	.78373
x123	69	3.00	5.00	3.8551	.69187
x124	69	2.00	5.00	3.7826	.76446
x131	69	3.00	5.00	4.2464	.65092
x132	69	1.00	5.00	3.4493	1.03663
x133	69	2.00	5.00	3.5797	.84724
x134	69	3.00	5.00	4.1014	.57253
y1	69	3.00	5.00	4.2174	.68319
y2	69	2.00	5.00	3.6232	.82429
y3	69	3.00	5.00	4.2464	.62792
y4	69	3.00	5.00	4.0870	.74240

The data in table 2 shows that the respondents' answers to all indicators used on average are above the value of 3, this indicates that all indicators used reflect the respondents' agreement with these indicators.

1. *The influence of personal factors (perceived difficulties, responses to difficulties, open-mindedness culture, creativity and adaptive ability) on innovation culture.*

For the results of testing the influence of personal factors (perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5)) on innovation culture, can be seen in the table below:

Table 3. Partial Test of the Effect of Personal Factors on Innovation Culture

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	8.299	1.575		5.289	.000			
XI_DP	-.154	.053	-.212	-2.424	.018	.093	-.292	-.196
X2_RTD	-.135	.060	-.200	-2.254	.028	.112	-.273	-.182
X3_OMC	.376	.127	.371	2.959	.004	.551	.349	.239
X4_K	-.302	.113	-.330	-2.679	.009	.385	-.320	-.216
X5_KA	.719	.112	.000	6.448	.000	.698	.631	.520

The analysis shows that perceived difficulties (X1), responses to difficuties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5) have a significant effect (below 5%) on Innovation culture. However, in terms of direction or coefficient, there are findings that the variables of open-mindedness culture (X3) and adaptive ability (X5) have a positive direction while perceived (X1), responses to difficuties (X2) and creativity (X4) have a negative direction. The results also found that variable X5 (adaptive ability) most dominantly affects the culture of innovation. For the simultaneous test as well (F-test) shows significant results below 5%.

Table 4. Simultaneous Test of the Effect of Personal Factors on Innovation Culture

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	189.454	5	37.291	18.147	.000[b]
	Residual	129.459	63	2.055		
	Total	315.913	68			

a. Dependent Variable: Y_BO
b. Predictors: (Constant, X5_KA, X1_DP, X2_RTD, X4_K, X3_OMC

Table 5. R-Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.768[a]	.590	.559	1.43349	1.580

a. Predictors: (Constant, X5_KA, X1_DP, X2_RTD, X4_K, X3_OMC
b. Dependent Variable: Y_BO

Simultaneously, there is a strong correlation (76.8%) between the variables of perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5) with Innovation culture. Also on the simultaneous coefficient of determination

(59%), which shows the contribution of all X variables to Y is quite large. For the classical assumption test, it can be seen that the DW coefficient is 1.58 which is large enough so that it can be said that there is no autocorrelation. For the multicollinearity test can be seen in the table 6:

Table 6. Multicollinearity Test of Personal Factors on Y

		X1_DF	X2_RTD	X2_OMC	X4_K	X5_KA	Y_BO
X1_DF	Pearson Correlation	1	.021	.284*	.129	.307*	.083
	Sig (2tailed)		.963	.919	.291	.919	.449
	N	69	69	69	69	69	69
X2_RTD	Pearson Correlation	.021	1	.375**	.216	.311**	.112
	Sig (2tailed)	.963		.001	.071	.009	.359
	N	69	69	69	69	69	69
X2_OMC	Pearson Correlation	.284	.375**	1	.576**	.672**	.551**
	Sig (2-tailed)	.019	.001		.000	.000	.000
	N	69	69	69	69	69	69
X4_K	Pearson Correlation	.129	.216	.676**	1	.681**	.395**
	Sig (2-tailed)	.291	.071	.000		.000	.001
	N	69	69	69	69	69	69
X5_KA	Pearson Correlation	.307*	.311**	.072**	.661**	1	.699**
	Sig (2-tailed)	.010	.000	.000	.000		.000
	N	69	69	69	69	69	69
Y_BO	Pearson Correlation	.093	.112	.551**	.395**	.698**	1
	Sig (2-tailed)	.448	.359	.000	.001	.000	
	N	69	69	69	69	69	69

The results of the hetroscedastic test show that there is no correlation between the independent variables that is high enough for the Y variable so that it can be said that there is no hetroscedastic.

2. *Influence of internal factors (Learning Capability (LC), Intellectual capital, Knowledge management, social network) on innovation culture*

For the results of testing the influence of internal factors (Learning Capability (LC) (X6), Intellectual capital (X7), Knowledge management (X8), social network (X9) on innovation culture (Y), can be seen in the table 7:

Table 7. Partial Test of the Effect of Internal Factors on Innovation Culture

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	4.406	1.315		3.350	.001			
X8_LC	.179	.086	.227	2.084	.041	.594	.252	.167
X7_IC	.460	.124	.452	3.696	.000	.703	.419	.295
X3_KM	-.155	.072	-.212	-2.150	.035	.299	-.260	-.172
X3_LSN	.273	.120	.294	2.273	.026	.665	.273	.182

The analysis shows that Learning Capability (LC) (X6), Intellectual capital (X7), Knowledge management (X8), social network (X9) have a significant effect (below 5%) on Innovation culture. However, in terms of direction or coefficient, there are findings that Knowledge management (X8) has a negative direction, while Learning Capability (LC) (X6), Intellectual capital (X7) and social

network (X9) have a positive direction. The results also found that the variable Intellectual capital (X7), most dominantly affects the culture of innovation. For the simultaneous test as well (F-test) shows significant results below 5%.

Table 8. Simultaneous Test of the Effect of Internal Factors on Innovation Culture.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	186.639	4	48.660	23.100	.000[b]
	Residual	129.274	64	2.020		
	Total	315.913	68			

Table 9. R-Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.769[a]	.591	.565	1.42124	1.681

Simultaneously, there is a strong correlation (76.9%) between Learning Capability (LC) variables (X6), Intellectual capital (X7), Knowledge management (X8), and social network (X9) with Innovation culture. Also in the simultaneous coefficient of determination (59%), which shows the contribution of all X variables to Y is quite large. For the classical assumption test, it can be seen that the DW coefficient is 1.68 which is large enough so that it can be said that there is no autocorrelation. While the multicollinearity test results show that there is no correlation between independent variables which is high enough so that it can be said that there is no multicollinearity. The results of the hetroskedastis test show that there is no correlation between the independent variables which is high enough for the Y variable so that it can be said that there is no hetreoskedasticity.

3. *Influence of cultural factors (Individualism (X10), power distance (X11), uncertainty avoidance (X12) and masculinity / femininity (X13) on innovation culture*

For the results of testing the influence of cultural cultural factors (Individualism (X10), power distance (X11), uncertainty avoidance (X12) and masculinity / femininity (X13) on innovation culture (Y), can be seen in the table 10:

Table 10. Partial Test of the Effect of Cultural Factors on Innovation Culture

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	3.692	1.115		3.571	.001			
X10_Y	.246	.086	.287	2.863	.006	.676	.337	.205
X11_FD	-.026	.111	-.029	-.230	.819	.666	-.029	-.015
X12_IA	.377	.098	.452	3.827	.000	.765	.432	.274
X13_MF	.181	.079	.234	2.310	.024	.651	.277	.165

The results of the analysis show that Individualism (X10), uncertainty avoidance (X12) and masculinity / femininity (X13) have a significant effect (below 5%) on the culture of innovation. However, the variable power distance (X11) does not significantly affect the culture of innovation. However, in terms of direction or coefficient, there are findings that Individualism (X10), uncertainty avoidance (X12) and masculinity / femininity (X13) have a positive direction while power distance (X11) has a negative direction towards innovation culture. The results also found that the uncertainty avoidance variable (X12), most dominantly affects the culture of innovation. For the simultaneous test as well (F-test) shows significant results below 5%.

Table 11. Simultaneous Test of the Effect of Cultural Factors on Innovation Culture

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	212.619	4	53.152	32.930	.000[b]
	Residual	103.303	64	1.614		
	Total	315.913	68			

Table 12. R-Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.920[a]	.573	.653	1.27048	1.856

Simultaneously, there is a strong correlation (82%) between the variables of Individualism (X10), power distance (X11), uncertainty avoidance (X12) and masculinity/femininity (X13) with Innovation culture. Also in the simultaneous coefficient of determination (67.3%), which shows the contribution of all X variables to Y is quite large. For the classical assumption test, it can be seen that the DW coefficient is 1,856 which is large enough so that it can be said that there is no autocorrelation. On the other hand, the multicollinearity test results show that there is no correlation between the independent variables which is high enough so that it can be said that there is no multicollinearity. And the results of the hetroskedastis test show that there is no correlation between the independent variables which is high enough for the Y variable so that it can be said that there is no heteroscedasticity.

4. *The impact of owner age, business age, and ethnic origin has a different impact on the influence of personal factors on innovation culture.*

To see the impact of owner age, business age and ethnic origin on the effect of personal factors (perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5)) on innovation culture, see table 13:

Table 13: Influence of Personal Factors on Innovation Culture

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	8.299	1.575		5.269	.000			
X1_DP	-.154	.063	-.212	-2.424	.018	.093	-.292	-.196
X2_RTD	-.135	.060	-.200	-2.254	.028	.112	-.273	-.182
X3_OMC	.376	.127	.371	2.959	.004	.551	.349	.239
X4_K	-.362	.113	-.330	-2.679	.009	.395	-.320	-.216
X5_KA	.719	.112	.800	6.448	.000	.698	.631	.520

Table 14. The Effect of Personal Factors on Innovation Culture with Age Control

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	6.498	2.726		2.384	.020			
X3_DP	-.159	.064	-.219	-2.485	.015	.083	-.301	-.201
X2_RTD	-.131	.050	-.194	-2.176	.033	.112	-.266	-.176
X3_DMC	.379	.128	.385	2.856	.005	.551	.345	.234
X4_K	-.298	.113	-.334	-2.926	.011	.385	-.316	-.212
X3_KA	.719	.112	.860	6.429	.000	.068	.632	.528
K1_UMUR	.996	.111	.006	.619	.421	.884	.162	.868

Table 15. Influence of Personal Factors on Innovation Culture with Age Controls and ethnicity

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	7.119	2.874		2.477	.016			
X3_DP	-.156	.064	-.215	-2.434	.018	.093	-.298	-.198
X2_RTD	-.135	.061	-.199	-2.215	.031	.112	-.273	-.180
X3_DMC	.363	.129	.358	2.823	.006	.551	.340	.229
X4_K	-.300	.114	-.327	-2.634	.011	.395	-.320	-.214
X3_KA	.721	.112	.802	6.420	.000	.0698	.635	.521
K3_UMUR	.074	.113	.055	.0652	.517	.084	.083	.053
K2_ETNIS	-.073	.102	.059	-.708	.492	-.130	-.090	-.057

Table 16. The Effect of Personal Factors on Innovation Culture with Age Controls and ethnicity and business age

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	7.359	2.673		2.561	.013			
X3_DP	-.154	.054	-.212	-2.402	.019	.083	-.285	-.194
X2_RTD	-.126	.061	-.198	-2.066	.043	.112	-.258	-.167
X3_DMC	.358	.128	.353	2.786	.067	.551	.339	.228
X4_K	-.285	.114	-.318	-2.492	.015	.285	-.386	-.282
X3_KA	.085	.116	.763	5.802	.000	.536	.696	.476
K1_UMUR	.096	.114	.067	.792	.433	.094	.102	.054
K2_ETNIS	-.989	.182	-.052	-.248	.458	-.138	-.086	-.968
K3_USHABISN	-.135	.118	-998	-1.183	.252	-.296	-.148	-.994

The results of the analysis show that the influence of perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5) has a significant effect (below 5%) on innovation culture, which remains significant even after controlling for aspects of owner age, ethnicity and business age.

5. *The impact of owner age, business age, ethnic origin and firm size have different impacts on internal influences on innovation culture.*

For the results of testing the influence of internal factors (Learning Capability (LC) (X6), Intellectual capital (X7), Knowledge management (X8), social network (X9) on innovation culture (Y), can be seen in the table below:

Table 17: Influence Of Internal Factors On Innovation Culture

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	4.406	1.315		3.350	.001			
X8_LC	.179	.086	.227	2.084	.041	.594	.252	.167
X7_IC	.179	.085	.482	3.696	.000	.703	.419	.295
X3_KM	-.155	.072	-.212	-2.150	.035	.299	-.260	-.172
X3_LSN	.273	.120	.294	2.273	.026	.665	.273	.182

Table 18: Influence of internal factors on innovation culture with age control

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	3.442	2.554		1.248	.192			
X6_LC	.177	.087	.224	2.088	.045	.534	.249	.184
X7_IC	.453	.126	.454	3.579	.051	.703	.411	.288
X8_KM	-.155	.073	-.213	-2.137	.036	.289	-.260	-.172
Y2_LSN	.280	.122	.302	2.297	.025	.066	.278	.185
K1_UMUR	.049	.110	.020	.447	.651	.084	.068	.036

Table 19: Influence of internal factors on innovation culture with age control and ethnicity

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	2.918	2.798		1.098	.234			
X6_LC	.178	.057	.221	1.998	.050	.234	.248	.192
X3_IC	.458	.128	.458	3.583	.021	.753	.413	.298
X8_MM	-.151	.878	-.287	-2.060	.044	.298	-.253	-.187
Y2_LSN	.298	.123	.307	2.318	.024	.063	.293	.188
K1_UMUR	.858	.113	.044	.528	.020	.848	.067	.043
K2_ETNIS	.058	.104	.048	.528	.589	-.130	.067	.043

Table 20. Influence of Internal Factors on Innovation Culture with Age and Ethnicity and Business Age Controls

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	2.191	2.798		1.130	.283			
X6_LC	.168	.088	.253	1.910	.053	.594	.289	.155
X3_IC	.438	.136	.831	3.103	.003	.753	.373	.257
X8_MM	-.142	.078	-.134	-1.878	.055	.286	-.234	-.153
Y2_LSN	.292	.124	.315	2.963	.022	.985	.208	.131
K1_UMUR	.071	.118	.052	.816	.548	.054	.079	.050
K2_ETNIS	.080	.195	.041	.473	.673	-.720	.061	.038
K3_USHABISN	-.075	.121	-.958	-.816	.536	-.239	-.079	.058

The results of testing the effect of internal factors (Learning Capability (LC) (X6), Intellectual capital (X7), Knowledge management (X8), social network (X9) on innovation culture (Y), show different results specifically on the Learning Capability (LC) variable (X6), where when controlled for ethnic aspects and business age, this variable becomes insignificant to innovation culture. For the Knowledge management variable (X8), it becomes insignificant when the business age factor is included.

6. *The impact of owner age, business age, ethnic origin and firm size has a different impact on the influence of cultural factors on innovation culture.*

For the results of testing the influence of cultural cultural factors (Individualism (X10), power distance (X11), uncertainty avoidance (X12) and masculinity / femininity (X13) on innovation culture (Y), can be seen in the table below:

Table 21: Influence of Cultural Factors on Innovation Culture

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	3.982	1.115		3.571	.001			
X10_Y	.246	.086	.287	2.983	.006	.676	.337	.205
X11_FD	-.026	.111	-.029	-.230	.819	.666	-.029	-.016
X12_IA	.377	.098	.452	3.827	.000	.765	.432	.274
X13_MF	.181	.079	.234	2.310	.024	.651	,277	.165

Table 22: Effect of Cultural Factors on Innovation Culture with Age Control

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	1.162	2.267		.803	.118			
X10_Y	.248	.336	.288	2.484	.085	.475	.353	.245
X11_FD	-.827	.111	-031	-.248	.025	.485	-.031	-.018
X12_IA	.380	.058	.458	1.873	.000	.785	.433	.276
X13_MF	.173	.479	.336	2.283	.828	.451	.377	.183
K1_UMUR	.121	.486	.888	1.251	.254	.054	.191	.088

Table 23. Influence of Cultural Factors on Innovation Culture with Age Controls and ethnicity

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	1.495	2.417		.819	.036			
X10_Y	.268	.388	.289	2.667	.004	.476	.342	.296
X11_FD	-.927	.113	-831	-.247	.000	.488	-.231	.017
X12_IA	.383	.899	.026	3.829	.000	.788	.637	.275
X13_MF	.179	.379	.230	2.258	.002	.411	.277	.163
K1_UMUR	.121	.388	.389	1.224	.226	.377	.154	.008
K2_ETNIS	.481	.881	.081	.098	.985	-.118	.201	.021

Table 24. Effect of Cultural Factors on Innovation Culture with Age Controls and ethnicity and business age

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
(Constant)	1.825	2.465		.740	.483			
X10_Y	.248	.057	.258	2.859	.006	.076	.268	.228
X11_FD	-.031	.113	-935	-.270	.758	.889	-.878	-.958

Model	Unstandardized Coefficients		Standardized Coeffiecients Beta	t	Sig.	Correlations		
	B	Std. Error				Zero-order	Partial	Part
X12_IA	.358	.154	.427	3.411	.001	.768	.400	.248
X13_MF	.188	.080	.243	2.954	.022	.851	.203	.189
K1_UMUR	.128	.188	.087	1.298	.363	.074	.163	.033
K2_ETNIS	-.080	.127	-.018	-.149	.457	-.286	-.295	-.054

For the results of testing the effect of cultural cultural factors (Individualism (X10), power distance (X11), uncertainty avoidance (X12) and masculinity / femininity (X13) on innovation culture (Y), with control variables of owner age, ethnicity and business age, have no impact on innovation culture.

3.3. Discussion

The results of the analysis show that personal factors have a significant effect on the innovation culture of MSMEs. This is very logical because the conditions in the field do show that personal aspects or characteristics greatly influence the innovation culture of the business they own. Personal factors are very attached to business owners who will certainly be applied in managing their business, many studies support this finding. Internal factors are closer to organizational or company capabilities and the findings also show that these factors affect organizational culture. MSMEs in North Sulawesi as a business organization are indeed very dependent on the characteristics of the owner, but in theory they are still influenced by the values in the business organization. For cultural factors, the power distance variable has no effect on innovation culture, because bureaucratic aspects, especially the government, do not directly affect the culture of innovation in MSMEs.

4. Conclusion

Based on the results of the analysis, the following conclusions can be made:

1. The results of the analysis for the validity and reliability tests of the indicators and variables used show that all indicators in measuring variables are valid because they have a significant correlation below 5%, while the reliability figures shown by alpha crombath also produce figures above 0.6 which indicates that all indicators are reliable.
2. Respondents' answers to all indicators used on average are above the value of 3, this shows that all indicators used reflect the agreement of the respondents on these indicators.
3. The analysis shows that perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5) have a significant effect (below 5%) on innovation culture. However, in terms of direction or coefficient, there are findings that the variables of open-mindedness culture (X3) and adaptive ability (X5) have a positive direction while perceived (X1), responses to difficuties (X2) and creativity (X4) have a negative direction. The results also found that variable X5 (adaptive ability) most dominantly affects the culture of innovation. For the simultaneous test as well (F-test) shows significant results below 5%.
4. Simultaneously showed a strong correlation (76.8%) between the variables of perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5) with innovation culture. Also on the simultaneous coefficient of determination (59%), which shows the contribution of all X variables to Y is quite large. The classical assumption test is fulfilled.
5. The results of the analysis show that Learning Capability (LC) (X6), Intellectual capital (X7), Knowledge management (X8), social network (X9) have a significant effect (below 5%) on the culture of Innovation. However, in terms of direction or coefficient, there are findings that Knowledge management (X8) has a negative direction, while Learning Capability (LC) (X6), Intellectual capital (X7) and social network (X9) have a positive direction. The results also found that the variable Intellectual capital (X7), most dominantly affects the culture of innovation. For the simultaneous test as well (F-test) shows significant results below 5%.

6. Simultaneously shows a strong correlation (76.9%) between Learning Capability (LC) variables (X6), Intellectual capital (X7), Knowledge management (X8), and social network (X9) with Innovation culture. Also on the simultaneous coefficient of determination (59%), which shows the contribution of all X variables to Y is quite large. The classical assumption test is fulfilled.
7. The results of the analysis show that Individualism (X10), uncertainty avoidance (X12) and masculinity / femininity (X13) have a significant effect (below 5%) on innovation culture. However, the variable power distance (X11) does not significantly affect the culture of innovation. However, in terms of direction or coefficient, there are findings that Individualism (X10), uncertainty avoidance (X12) and masculinity / femininity (X13) have a positive direction while power distance (X11) has a negative direction towards innovation culture. The results also found that the uncertainty avoidance variable (X12), most dominantly affects the culture of innovation. For the simultaneous test as well (F-test) shows significant results below 5%.
8. Simultaneously, it shows that there is a strong correlation (82%) between the variables of Individualism (X10), power distance (X11), uncertainty avoidance (X12) and masculinity / femininity (X13) with innovation culture. Also on the simultaneous coefficient of determination (67.3%), which shows the contribution of all X variables to Y is quite large. For the classical assumption test is fulfilled.
9. The results of the analysis show that the influence of perceived difficulties (X1), responses to difficulties (X2), open-mindedness culture (X3), creativity (X4) and adaptive ability (X5) has a significant effect (below 5%) on innovation culture, which remains significant even after controlling for the aspects of owner age, ethnicity and business age.
10. The results of testing the effect of internal factors (Learning Capability (LC) (X6), Intellectual capital (X7), Knowledge management (X8), social network (X9) on innovation culture (Y), show different results specifically on the Learning Capability (LC) variable (X6), where when controlled for aspects of ethnicity and business age, this variable becomes insignificant on innovation culture. For the Knowledge management variable (X8), it becomes insignificant when the business age factor is included.
11. For the results of testing the effect of cultural cultural factors (Individualism (X10), power distance (X11), uncertainty avoidance (X12) and masculinity / femininity (X13) on innovation culture (Y), with control variables of owner age, ethnicity and business age, no impact on innovation culture.

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