

The Effects of Intellectual Capital Components in Increasing the Growth of Small and Medium Enterprises (SMEs)

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Abstract- Objective: to analyze the impact of the connected components of the intellectual capital component from a static aspect and produce a performance leverage model to improve competitiveness and comparability for the survival of small and medium enterprises (SMEs). Method: To answer the hypothesis, this study used Structural Equation Modeling (SEM) which is an integrated approach between Factor Analysis, Structural Models, and Path Analysis. On the other hand, SEM is also an integrated approach between data analysis and variable variables. SEM was chosen in this study because researchers can do three activities simultaneously, namely checking validity and reliability of instruments, testing the relationship model between latent variables (equivalent to path analysis), and obtaining models that are useful for forecasting (equivalent to structural models or regression analysis). Findings: Human Capital has a strong influence on the performance of small and medium enterprises (SMEs) through structural capital and relational capital

Keywords: Intellectual Capital, Human Capital, Structural capital, relational capital, Growth, SMEs, SEM

1 INTRODUCTION

Globalization influences the competitive economic order. If the small and medium enterprises (SMEs) want to compete and continue to survive and win the competition, they were forced to make changes that are both strategic and operational [1]. For those small and medium enterprises (SMEs) need to recognize, measure and regulate the resources they have, and those resources must have the uniqueness or specifications for small and medium enterprises (SMEs), because of their uniqueness and specifications as a trigger for new success [2].

Intellectual capital is a concept that is now used as a collective name for new performance triggers [3], as resources that are valued in the scope of knowledge [4], have almost become Critical Success Factors for all types of organizations, and are recognized as triggers for new success [5],[6]. Intellectual capital can be viewed from the aspects of static or resources and dynamic or investment [7] and stock and flow about assets of capabilities [8], consisting of three components namely Human Capital, Structural Capital, and Relational Capital [9]. In order for small and medium enterprises to succeed and be able to manage their own resources, intellectual capital (IC) is needed, because intellectual capital (IC) is used to create and develop organizational value. From another perspective, IC measurement focuses on forming an effective measurement model [10], to reflect the operations of small and medium enterprises (SMEs) under the influence of the new economic order to offer more accurate information.

As a strategic analysis and process formulation, intellectual capital IC considers resources based view that assumes companies are seen as resources and capabilities that cannot be traded freely because these firm-specific resources and capabilities will produce economic benefits that cannot be perfectly imitated by competitors, so that resources have competitive benefits. As a first step begins with competency from human, because as the only real actor in the business, all products are the result of human activities, their existence depends on them, because they will continuously improve their abilities by means of computers, telephones, offices, cars, and facilities such as ideas, software, and others.

In a new economic order based on capital resources and networks [11] the role of economists and managers has developed because it is far more difficult to see or calculate one's ideas and expertise than counting money or products. In the new economic order, it is shown that: 1) Knowledge becomes one of the most meaningful resources, while traditional production factors become secondary factors, and 2) Knowledge is an important resource in generating competitive advantage. Therefore management must try to identify, produce, disclose, and develop existing knowledge within the company. [8], many companies have restructured their organizations by institutionalizing managerial positions in the CKO (Chief Knowledge Officer) or CLO (Chief Learning Officer), such as: 1) Arthur Andersen Company uses the terms Managing Partner and Packed Knowledge, 2) British Petroleum with a BP's Knowledge Management Team, 3) Coca-Cola with the Chief Learning Officer, 4) General Motors with the Director and Knowledge Network Department, 5) Dow Chemical Company with Global Director, Intellectual Assets, and

Capital Management, 6) General Electric with the Chief Learning Officer, 7) Hewlett-Packard Company with a Knowledge Management Program Manager, 8) ICL with the Program Director of Knowledge Management, 9) Nokia Telecommunications with Head of Knowledge Management Development, 10) Shell International Exploration and Production with Learning and Development Manager, 11) Skandia AFS with Vice President and Corporate Director of Intellectual Capital.

From the background of the problem and the findings of the researchers as described in the paragraphs above, researchers are interested in conducting a study of intellectual capital (IC), because researchers consider intellectual capital (IC) a very necessary and important concept that can be used as an alternative strategy in facing global competition by small and medium enterprises (SMEs), as well as showing clearly that if small and medium enterprises (SMEs) want to survive and win the competition they must know the resources they have to develop in the future so that they have firm-specific characteristics which are difficult for others to imitate. This characteristic is a competitive advantage that must be maintained or improved in the era of the global economy.

2 RESEARCH METHODOLOGY PARTICIPANTS

The population of this study is small and medium enterprises in an environment of craftsmen in 4 regions including Bangkalan Districts, Mojokerto City, Mojokerto Districts and Lamongan Districts, with the aim of trying to minimize the diversity of company behavior due to the influence of external environmental factors from the company so that it will have more impact undirected. Besides that, it is because understanding intellectual capital is an example that represents the whole company.

The sample units in this study are small and medium enterprises in an environment of craftsmen in the 4 regions

above which have criteria for small and medium enterprises (SMEs) including the number of workers, turnover of sales per year and assets.

Determination of the overall sample size is guided by the opinion of [12] that in order to obtain representative data, if the population is more than 1000 samples are used at 10% - 15%.

The sampling technique used in sampling from each population and sub-population in this study is proportionate random sampling, which is a proportional random sampling technique for each sub-population.

The population and selected samples used in this study are shown in Table 1 below.

TABLE 1:
REGION, POPULATION AND STUDY SAMPLE

	Region	Population	Sample	%
1	Bangkalan District	390	58	15%
2	Mojokerto City	410	49	12%
3	Mojokerto District	681	91	13%
4	Lamongan District	590	71	12%
	Total	2071	269	13%

Based on Table 1, of the total population of 2071 small and medium enterprises in the area of craftsmen, the sample collected successfully averaged 13% of the population, amounting to 269 small and medium enterprises, using the proportionate random sampling method. The selection of a total sample of 269 small and medium enterprises, it can be determined the number of units of analysis in this study as presented in table 2 as follows:

TABLE 2:
RATIO OF RESEARCH RESPONDENTS

Participant	Description	Region				Frequency	%
		1	2	3	4		
1. Age	≤ 25	9	2	3	4	18	7%
	25 - 45	24	25	41	25	115	43%
	45 - 60	21	16	43	29	109	41%
	≥ 60	4	6	4	13	27	10%
		58	49	91	71	269	100%
2. Gender	Male	35	32	59	46	172	64%
	Female	23	17	32	25	97	36%
		58	49	91	71	269	100%
3. Education	Middle School	18	9	23	18	68	25%
	Diploma	12	15	35	26	88	33%
	Bachelor's	22	18	27	21	88	33%
	Master's	6	6	6	6	24	9%
	Doctorate	0	1	0	0	1	0%
	Other	0	0	0	0	0	0%
	58	49	91	71	269	100%	
4. Jobs	Owners	10	5	21	21	57	21%
	Managers	7	8	13	7	35	13%
	Owners and Managers	41	36	57	43	177	66%
		58	49	91	71	269	100%
5. Professional Experience	<2 years	5	8	9	14	36	13%
	2 - 5 years	15	12	46	35	108	40%
	6 - 10 years	24	23	26	16	89	33%
	11-20 years	9	4	9	3	25	9%
	≥ 20 Years	5	2	1	3	11	4%
		58	49	91	71	269	100%
6. Duration of Operation	≤ 2 years	8	3	3	6	20	7%
	2 - 5 years	10	12	17	15	54	20%
	5 - 10 years	15	11	26	16	68	25%
	> 10 years	25	23	45	34	127	47%
		58	49	91	71	269	100%
7. Number of employees	5 - 19 people	39	26	37	43	145	54%
	20 - 99 people	19	23	54	28	124	46%
		58	49	91	71	269	100%
8. Sales Turnover	≤ 1 Billion / years	31	27	57	44	159	59%
	1 - 3 Billion /years	27	22	34	27	110	41%
		58	49	91	71	269	100%
9. Company Assets	≤ 200 Million	13	9	19	18	59	22%
	200 Million - 10 Billion	45	40	72	53	210	78%
		58	49	91	71	269	100%

Region 1 = Bangkalan District, 2 = Mojokerto City, 3 = Mojokerto District, 4 = Lamongan District

From table 2, participants can be seen in this study, judging by the age of 115 respondents or 43%, the average age is between 25-43 years and 41% are aged between 45-60 years. Viewed from the gender as many as 172 respondents or 64% male. In terms of education, as many as 88 respondents or 33% have Diploma degrees, this is the same as those with undergraduate education. For 177 respondents, 66% are owners and managers. Viewed from professional experience before starting a business 108 respondents or 40% had to experience 2-5 years and as many as 88 respondents or 33% had experience of 5-10 years. For the duration of business operations, 127 respondents or 47% said that they had operated more than 10 years. Judging from the number of workers there are 145 respondents or 54% have a workforce of 5-19 people and 124 respondents or 46% have a workforce of 21-99 people. Judging from the level of sales 159 respondents or 59% of sales turnover is less or equal to 1 billion per year and 110 respondents or 41% as much as 1-3 billion per year. Judging from the company's assets 210 respondents or 78% of 200 million - 10 billion.

Apparatus

For the data collection in this study, the researcher uses a

questionnaire as the apparatus, intended to obtain information in writing and respondents. The objectives of making this questionnaire are: (1) obtain information that is relevant to the research objectives; (2) obtain information with the highest possible reliability and validity (Muller, 1996).

The type of questionnaire submitted to respondents in this study is closed by asking what indicators or items the company has, which are related to the components of intellectual capital.

In this study, the primary data obtained is ordinal data that is qualitative in nature, so that the data can be quantitatively measured using the Likert scale. With a range of answers of grades 1 to 5, the biggest score is in the answer that states agreement, while the lowest score is on the answer that states disagreement.

Research design

To operationalize intellectual capital variables in this study, it is seen from the static aspect, namely the preparation or present value of an intangible [7], because it will be used to generalize in measuring company performance, and because this approach is characteristic of each company or specific firm.

Human Capital (HC)

Human capital is operationalized as a characteristic of the owners or leaders of small and medium enterprises (UKM) seen from the static aspect [13] including knowledge, experience, education, age, work experience, professional experience, family background.

Structural Capital (SC)

Structural Capital is operationalized as the knowledge that remains within the company, when the workforce leaves the job [7]. Structural Capital is measured from the dimensions of Information Technology seen from the static aspect of [9]. The importance of information technology is operationalized as the equipment used by the company with regard to office needs, in the form of computers, computer usage, telephone usage and e-mail utilization [9].

Relational Capital (RC)

Relational capital is operationalized as a value that results from the fabric of good business relationships with customers. According to [14] the demand for customer relations is a business relationship that has been done with its customers to maintain the values of the company that have been created so as not to decline seen from the static aspect [14], measured using indicators of large customer proportion old customers, customer age structure, frequency of reorder.

Performance

Operated as a measure of the success of small and medium enterprises (UKM) seen from the dimensions of growth [15], this growth is obtained from increasing or creating value by interacting the components of intellectual capital that can be measured by indicators of Operating Length, Number of workers, Turnover Sales, Company Assets, New Products.

From the operational definition above, a table can be summarized briefly as in table 3 below.

TABLE 3:
 CLASSIFICATION OF LATENT VARIABLES AND RESEARCH INDICATORS

Variables Latent	Indicators	
Exogenous unobserved	Dimension	Exogenous observed
Human Capital	characteristics of individual founders (Hallowell, 1996)	ic1: Education ic2: Age ic3: Experience working in companies ic4: Experience Professional ic5: Background Family
Endogenous unobserved	Dimension	Endogenous observed
Structural Capital	Information Teknologi (August, 2012)	it1: Number of computers per it2: Computer usage per it3: correspondence E-mail it4: Frequency of telephone usage for business
Relational Capital	Customer Relations (Kostagiolas, 2012)	cr1: Proportion of large customers cr2: Sales to existing cr3: customer age structure cr4: Frequency of reordering
Performance	Growth (Baida, 2006)	g1: Duration of company operations g2: Number of workers g3: Company assets g4: New product g5: Sales turnover

Procedure

To answer the hypothesis in this study used Structural Equation Modeling (SEM) which is an integrated approach between Factor Analysis, Structural Models, and Path Analysis. On the other hand, SEM is also an integrated approach between analyzing data with variables and concepts. SEM was chosen in this study because researchers can do three activities simultaneously, namely checking validity and reliability of instruments, testing the relationship model between latent variables (equivalent to path analysis), and obtaining models that are useful for forecasting (equivalent to structural models or regression analysis).

To answer the problem formulation 1 (first) in this study, it relates to the interaction between the variables of

intellectual capital and their effect on nonfinancial performance, using the steps of SEM analysis, complete SEM modeling consists of Measurement Models and Structural Model. The measurement model is aimed at confirming a dimension or factor based on its empirical indicators, while structural models are a model of the relationships that shape or explain causality between factors. To make complete modeling there are several steps, namely:

- Development of a theoretical model

After conducting scientific exploration through intense literature, SEM is used to confirm the theoretical model through empirical data, so that the model contained in this study is a specific organizational or company value creation tool so as to increase competitiveness to face the global era.

- Measurement of each variable

To measure each endogenous and exogenous variable in the model for unidimensional tests using confirmatory factor analysis.

- Select the Model Input and Estimation Matrix

The differences in SEM with other multivariate techniques are input data used in modeling and estimation. SEM only uses variant matrix/covariance or correlation matrix as input data for the overall estimation, the covariance matrix is used because it has the advantage of presenting valid comparisons between different populations or different samples as recommended by Baumgartner and Homburg (1990) in his SEM Ferdinand (2002). The considerations used to determine the estimation techniques to be used, refer to the studies of Hu, Bentler, and Kano (1992) presented in [16], which summarize the following:

By using the AMOS 4.0 computer program, we can estimate this causality model. One of the problems that will be faced is the identification problem. The problem of identification in principle is the problem of the inability of the model developed to produce unique estimates. Identification problems can arise through the following symptoms:

- a) The standard error for one or several coefficients is very large;
- b) The program is unable to produce the information matrix that should be presented;
- c) Strange numbers appear as if there is a negative error variance;
- d) The emergence of a very high correlation between the estimated coefficients obtained (for example more than 0.9).

[12] states that the way to test whether there is a problem or how to overcome this identification problem is by giving more constraints to the model being analyzed. In the causal model the problem that is often faced is the problem of identification (identification problem), namely the problem of the inability of the model developed to produce unique estimates. In the AMOS 4.0 program a solution to overcome this identification problem is by giving a constraint to the model being analyzed. The consequence of giving a constraint would be to eliminate the estimated coefficients which mean the value of the critical ratio and probability does not appear. The choice of construction location is done by considering the theory support and significant regression coefficient values through several tests, resulting in the best estimation model [12].

The Goodness of Fit Index Testing

In SEM analysis there is no single statistical test tool to measure or test hypotheses regarding the model [12]; [17]; and [16]. Basically, the various types of fit indices used are to measure the degree of conformity between the models hypothesized with the data presented. The aim of the researchers was to test by using several fit indices to measure the validity of the prepared model. The following is a summary of some of the suitability and cut-off values indices to be used

zero and the frequency distribution of the residual covariance must be symmetrical [16]. [12] provide a guideline to consider if it is found that the residual value generated by the model is quite large (> 2.58), then another way of modifying it is to consider adding a new path to the estimated model.

Basically, a relationship can be categorized as strong or weak based on the size of the correlation coefficient, with intervals as follows.

3 RESULTS

From the evaluation of the Goodness of fit Indices criteria After modifying the variables (revised), the results of the new SEM analysis Chi-Square, Probability, CMIN / DF, RMSEA, AGFI, GFI, TLI and CFI have met the criteria, as shown in Figure 1 the following. Based on the evaluation of the criteria for Goodness of fit Indices Final Model SEM in Table 6 it is shown that the model for each criterion is stated to be very good.

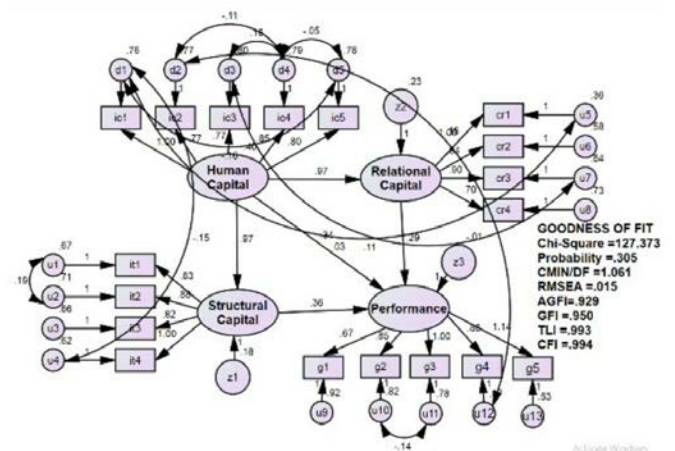


Fig.1 SEM Analysis of the Final Model

Model interpretation and modification

The final step is to interpret the model and modify the model that does not meet the testing requirements. After the model is estimated, the residual must be small or close to

After evaluating the criteria Goodness of fit Indices in the SEM Final Model shown in Figure 1, it can be seen that the model for each criterion is declared to have met the

requirements because the index conformity and cut-off value used to test are above the conditions required so that the final SEM model using the test Goodness of Fit is acceptable, because the model for each criterion is stated to be very good. are presented in Table 7 below:

TABLE 7:
GOODNESS OF FIT INDICES FOR THE FINAL MODEL SEM,

The goodness of Fit Index	Cut-off Value	Model Results	Description
X2 - Chi-Square		104.002	It is expected that the value is small
X2-Significance Probability (P-Value)	≥ 0.05	0.166	Very Good
RMSEA	≤ 0.08	0.024	Very Good
GFI	≥ 0.90	0.950	Very Good
CMIN / DF	≤ 2.00	1.143	Very Good
CFI	≥ 0.90	0.989	Very Good
TLI	≥ 0.95	0.985	Very Good
AGFI	≥ 0.90	0.933	Very Good

By evaluating criteria Goodness of fit Indices, we can know the strength of influence between variables both direct influence, indirect influence, and total influence. The direct effect is nothing but the coefficient of all the coefficient lines with one end arrows. Indirect effects are effects that arise through a variable between. The total effect is the effect of various relationships.

After confirmatory analysis for the structural model by incorporating a structural model with validity and reliability tests and confirmatory analysis per variable, it can be seen the effect strength between variables, namely direct, indirect, and total influences.

TABLE 8 :
PRESENTS THE EFFECTS BETWEEN VARIABLES DIRECTLY, INDIRECTLY AND IN TOTAL.

Component and Indicator	Human Capital		Structural Capital		Relational Capital		Performance	
	Effects							
	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect
Structural Capital	0.821	0	0	0	0	0	0	0
Relational Capital	0.791	0	0	0	0	0	0	0
Performance	0.338	0.622	0.415	0	0.356	0	0	0
it1	0	0.495	0.603	0	0	0	0	0
it2	0	0.505	0.615	0	0	0	0	0
it3	0	0.494	0.602	0	0	0	0	0
it4	0	0.567	0.690	0	0	0	0	0
g1	0	0.393	0	0.170	0	0.146	0.409	0
g2	0	0.495	0	0.214	0	0.183	0.516	0
g3	0	0.564	0	0.244	0	0.209	0.588	0
g4	0	0.490	0	0.212	0	0.182	0.510	0
g5	0	0.681	0	0.294	0	0.252	0.709	0
cr4	0	0.427	0	0	0.539	0	0	0
cr3	0	0.520	0	0	0.657	0	0	0
cr2	0	0.514	0	0	0.649	0	0	0
cr1	0	0.626	0	0	0.791	0	0	0
ic5	0.501	0	0	0	0	0	0	0
ic4	0.517	0	0	0	0	0	0	0
ic3	0.478	0	0	0	0	0	0	0
ic2	0.489	0	0	0	0	0	0	0
ic1	0.590	0	0	0	0	0	0	0

Based on Table 8 it is shown that there are positive and very strong direct effects (intervals of 0.800 - 1.000) from human capital to structural capital. In addition there are positive and strong direct influences (intervals from 0.600 - 0.799) from Human capital to relational capital. structural capital towards it4, it2, it1 and it3, where it4 is the frequency of telephone usage for business activities has the most influence which is 0.690. Relational Capital with respect to cr1, cr3 and cr2, where cr1 is the proportion of large customers having the greatest influence, namely 0.791. Performance against g5, where g5 is sales turnover of 0.709. Besides, it can also be seen that there is a strong direct and positive influence (intervals of 0.400 - 0.599) from human capital to ic1, ic2, ic3, ic4 and ic5, for structural capital towards performance. For relational capital towards cr1, sc2, sc3 sc5 and for performance. For performance against g3, g2, g4 and g1.

Also shown in table 7 that there are positive and strong indirect effects (intervals of 0.600 - 0.799) from human capital

on performance, g_5 , cr_1 , where g_5 is the sales turnover having an effect of 0.681 and cr_1 is the proportion of large customers that have an effect of 0.626. Besides that, there are positive and quite strong indirect effects (intervals of 0.400 - 0.599) from human capital to it_1 , it_2 , it_3 , it_4 , cr_2 , cr_3 , cr_4 , g_2 , g_3 , g_4 .

Based on the results of the analysis of the power of influence between variables both direct and indirect influences as presented in table 8, it can be presented a recapitulation of these effects as shown in table 9, making it easier to test the hypothesis in this study.

Relational Capital has a weak, positive and significant to the performance of small and medium enterprises (SMEs) of 0.356

Hypothesis 4:

Human Capital has indirect influence through structural capital and relational capital is very strong, positive and significant to the performance of small and medium enterprises (SMEs) of 0.960.

4 DISCUSSION

Discussion of Test Results

Globalization is rapidly impacting the business world today, namely the existence of competitive economic pressures and the changing order of traditional industrial economics towards a new knowledge-based economy that has forced leaders to pay attention to the measure of success that used to be financially non-financial.

This study examines the connection of the component of intellectual capital component consisting of human capital in terms of the dimensions of individual founding / owner characteristics, structural capital in terms of information technology dimensions and relational capital in terms of customer relations dimensions of performance in terms of the growth dimensions of small and medium enterprises (SMEs).

This research contributes to the intellectual capital literature by showing the importance of the dimensions of the dimensions of each intellectual capital component in terms of static aspects. By knowing the static aspects of the characteristics of individual founders/owners of small and medium enterprises (SMEs), they are able to quickly make a plan for developing their business in the future.

The results showed that the components of the intellectual capital component directly had a very weak influence on the performance of small and medium enterprises (SMEs). This was different from the results of the study of [18], [19], [20], [21] who said that component components have a direct influence on performance. But human capital has a very strong direct influence on structural capital as found by [22], [19], [20], This can be interpreted the interaction of human capital indicators results in support for the use of structural capital in the form of supportive infrastructure [5], and has a strong influence on relational capital as stated by [20] This reflects the leadership / owner-oriented collective goals [23] through the interaction of the founder who represents the company with the customer can be known the desires expected of the company, [19].

On the other hand human capital has a very strong indirect influence on the performance of small and medium enterprises (SMEs). This can mean the relationship between human capital (HC), structural capital (SC) and relational capital (RC) of the company will enhance performance through relationships that interdependence. Therefore in order to improve performance seen from the dimension of induction, the researcher concludes the characteristics of individual founders/owners of small and medium enterprises (SMEs) need to utilize information technology in

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By knowing the direct, indirect, and total influences as presented in Table 9 and from the evaluation results of the Goodness of Fit Indices in table 7 on the structural model, it shows that the suitability test of this model produces a good level of acceptance. Therefore, it can be concluded that the hypothesis states that the indicators are the same reference dimension (underlying dimensions) for existing variables (the influence of components intellectual capital on performance) so that the "model" can be accepted or feasible to be used to test the hypothesis in this study.

The hypothesis that is tested based on several relationship coefficients between dimensions in the table above can be described as follows:

Hypothesis 1:

Human Capital has a very strong, positive and significant direct effect on Structural Capital of 0.821, and has a strong, positive and significant direct influence on relational Capital amounting to 0.791, but has a weak influence on the performance of small and medium enterprises (SMEs)

Hypothesis 2:

Structural Capital has a weak, positive and significant influence on the performance of small and medium enterprises (SMEs) of 0.415

Hypothesis 3:

the form of the intensity of telephone use in establishing special relationships with large customers, because it can increase the growth of small and medium enterprises (UKM) through increasing sales turnover.

Limitations

This research was conducted with a static approach that only looked at the possibility of what resources small and medium enterprises (SMEs) have, not seeing the dynamic approach of what small and medium enterprises (SMEs) have done to increase their intellectual capital and, This study sees intellectual capital only from the dimensions of the individual characteristics of the owner/leader for human capital, information technology for structural capital and customer relations for relational capital, and growth for performance dimensions

Theoretical implications

This study develops and explains the pattern of relationships and the influence of intellectual capital on performance. This conceptual model was developed as an attempt to analyze the influence of the ability of human resources owned by small and medium enterprises (SMEs), facilities and infrastructure supporting human resource activities, and the existence of relationships in a network of work contained in intellectual capital (human capital, structural capital, and relational capital) to measure the performance of small and medium enterprises (SMEs).

In general, this study was successful in confirming the theories and results of previous studies on the effect of intellectual capital on the measurement of the performance of small and medium enterprises (SMEs). The structural analysis tested can prove the research path outlined in a model. Almost all the hypotheses tested can be verified. In particular the results of this study can strengthen theories derived from the concepts of human capital, structural capital, relational capital and performance and can be developed for future research by looking at other dimensions of dimensions for small and medium enterprises (SMEs).

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REFERENCE

[1] A. Wagenhofer, "Lev, Baruch, Intangibles: Management, Measurement, and Reporting, Brookings Institution Press, Washington, D.C. 2001, 216 pages," *Schmalenbach Bus. Rev.*, vol. 53, no. 4, pp. 351-352, Oct. 2001.
[2] A. Lado, "Expert systems, knowledge development and utilization, and sustained competitive advantage: A resource-based model," *J. Manage.*, vol. 24, no. 4, pp. 489-509, 1998.

[3] J. Roos, G. Roos, N. C. Dragonetti, and L. Edvinsson, "Consolidating Intellectual Capital Measurements: The {IC}-Index Approach," in *Intellectual Capital*, Palgrave Macmillan {UK}, 1997, pp. 78-101.
[4] J. Mouritsen and V. Murthy, "Strategic Performance Measures and Strategizing: Translations of Customer Orientation via the Service Profit Chain in a Bank," *AOS, 2d resubmission*, 2012.
[5] G. Roos, "Knowledge management, intellectual capital, structural holes, economic complexity and national prosperity," *J. Intellect. Cap.*, vol. 18, no. 4, pp. 745-770, Oct. 2017.
[6] M. A. Youndt and S. A. Snell, "Intellectual Capital Measure." American Psychological Association ({APA}), 2004.
[7] A. Lonnqvist and P. Kujansivu, "Designing and implementing an intellectual capital management system: applying the Meritum Guidelines in practice," *Int. J. Knowl. Manag. Stud.*, vol. 1, no. 3/4, p. 276, 2007.
[8] D. J. Teece, "The Knowledge Economy and Intellectual Capital Management," in *Managing Intellectual Capital*, Oxford University Press, 2002, pp. 3-32.
[9] P. O. de Pablos, "Measuring and reporting structural capital," *J. Intellect. Cap.*, vol. 5, no. 4, pp. 629-647, Dec. 2004.
[10] G. Roos and J. Roos, "Measuring your company's intellectual performance," *Long Range Plann.*, vol. 30, no. 3, pp. 413-426, Jun. 1997.
[11] D. Tapscott, "Strategy in the new economy," *Strateg. Leadersh.*, vol. 25, no. 6, pp. 8-14, Jun. 1997.
[12] J. F. Hair, C. M. Ringle, and M. Sarstedt, "The Better Approach to Structural Equation Modeling?," *Long Range Plann.*, 2012.
[13] J. Bruderl, P. Preisendorfer, and R. Ziegler, "Survival Chances of Newly Founded Business Organizations," *Am. Sociol. Rev.*, vol. 57, no. 2, p. 227, Apr. 1992.
[14] K. E. Sveiby, "Disabling the context for knowledge work: the role of managers' behaviours," *Manag. Decis.*, vol. 45, no. 10, pp. 1636-1655, Nov. 2007.
[15] N. Harada, "Who succeeds as an entrepreneur? An analysis of the post-entry performance of new firms in Japan," *Japan World Econ.*, vol. 15, no. 2, pp. 211-222, Apr. 2003.
[16] B. G. Tabachnick and L. S. Fidell, "Multivariate Analysis of Variance ({MANOVA})," in *International Encyclopedia of Statistical Science*, Springer Berlin Heidelberg, 2011, pp. 902-904.
[17] K. G. Joreskog and F. Yang, "Nonlinear structural equation models: The Kenny-Judd model with interaction effects," *Adv. Struct. Equ. Model. Issues Tech.*, 1996.
[18] L. P. Masupha, and Andrisha Beharry-Ramraj, J. Amolo, and and, "State financial assistance within Lesotho Maseru's small, medium and micro enterprises," *Public Munic. Financ.*, vol. 6, no. 4, pp. 7-14, Dec. 2017.
[19] J. Chen, Z. Zhu, and H. Y. Xie, "Measuring intellectual capital: a new model and empirical study," *J. Intellect. Cap.*, vol. 5, no. 1, pp. 195-212, Mar. 2004.
[20] A. L. August, "Preschool Education in Belize: Research on the Current Status and Implications for the Future," *Education*, vol. 2, no. 7, pp. 231-238, Dec. 2012.
[21] D. R. Soriano and G. J. Castrogiovanni, "The impact of education, experience and inner circle advisors on {SME} performance: insights from a study of public development centers," *Small Bus. Econ.*, vol. 38, no. 3, pp. 333-349, Mar. 2010.
[22] B. Holland and A. Linch, *Cultivating Human and Non-human Capabilities for Mutual Flourishing*. Oxford University Press, 2016.
[23] C. R. Leana and H. J. Van Buren, "Organizational Social Capital and Employment Practices," *Acad. Manag. Rev.*, vol. 24, no. 3, pp. 538-555, Jul. 1999.

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