DIJEMSS: Dinasti International Journal of Education Management and Social Science
E-ISSN: 2686-6331
P-ISSN: 2686-6358
https://dinastipub.org/DIJEMSS dinasti.info@gmail.com +62 811 7404 455
DINASTI PUBLISHER
DOI: https://doi.org/10.38035/dijemss.v6i1
https://creativecommons.org/licenses/by/4.0/
Received: 31 August 2024 | **Revised:** 08 October 2024 | **Publish:** 08 October 2024

Does Intellectual Capital Matter for Organizational Performance? (a Case Study)

Aslam Mei Nur Widigdo[1], Sepky Mardian[2]
[1]Universitas Mercu Buana, Jakarta, Indonesia, aslam.mei@mercubuana.ac.id
[2]Sekolah Tinggi Ekonomi Islam SEBI, Depok, Indonesia, sepky.mardian@sebi.ac.id

Corresponding Author: aslam.mei@mercubuana.ac.id [1]

Abstract: Organizational performance is one of the determining factors for sustainability. SD MM as one of the Islamic Mass Organization charities located in Limo Depok has performed less than optimally in the last 5 years. This study aims to determine and analyze the influence of intellectual capital, which consists of human capital, structural capital, and relational capital, on the organizational performance of the SD MM. The method used in this study is a research approach with a quantitative paradigm, using closed questionnaire research instruments, causality analysis with SEM (Structural Equation Modeling), and the use of SPLS (Part Least Square) as a statistical analysis tool. The respondents were all teachers and staff from SD MM as amount of 44. Sampling using saturated sampling techniques. The results showed that Human Capital does not affect organizational performance. Meanwhile, Relational Capital and Structural Capital partially have a significant positive effect on the organizational performance of SD MM.

Keywords: Intellectual Capital, Human Capital, Structural Capital, Relational Capital, Organizational Performance.

INTRODUCTION

Organizational performance is a very important thing to be considered by every organization, both profit-oriented and non-profit-oriented. Organizational performance is a critical point in organizational management because it is a measure of organizational success. According to Suryani and Fo Eh (2019), organizational performance is the result of a process carried out by the individuals in it based on established planning. Organizational performance is the result achieved in financial, market, operational, and employee performance. Organizational performance is the cumulative output of all activities carried out by the organization (Alrowwad et al., 2020).

One of the achievements of poor performance of educational organizations is indicated by a decrease in the number of students. This is experienced by SD MM which is one of the charities of Islamic organizations in Indonesia engaged in the implementation of elementary school education. During the last 5 years, the number of students at SD MM haxs decreased

by 5.83% every year. In the 2019/2020 school year, SD MM had 669 students. Meanwhile, in the 2023/2024 school year, the number of SD MM students is 526 students.

Variables that affect organizational performance include human resources, organizational fairness, organizational effectiveness (Suryani & FoEh, 2019). Some previous studies have stated that organizational performance is influenced by human capital, relation capital, and structural capital ((Katili et al., 2019) (Sugiono et al., 2019)(Alrowwad et al., 2020) (Yusliza et al., 2020) (Hasmirati & Akuba, 2022)), Meanwhile, several previous studies have given opposite results. The research conducted by Andriana (2014) and Saragih (2017) gave the results that human capital had a negative and insignificant effect on organizational performance. Research conducted by Aprilyani (2020) stated that human capital did not have a significant effect on the company's financial performance. Research conducted by Wusko and Alfianto (2022) provided the results that human capital did not have a significant effect on company performance, Research conducted by Muzakki (2020) showed that human capital and structural capital did not have a significant effect on company performance. Research conducted by Andriana (2014) stated that structural capital does have a positive influence but is not significant on companies' financial performance. Research conducted by Noor and Nawangsari (2021) showed Relational capital has a negative and significant effect on organizational sustainability.

Based on previous literature, it can be seen how important the role of human factors is in achieving organizational performance, more specifically in schools. Given the school organization as a place to study, intellectual capital becomes very important for the organization's success. According to (Bakshi, 2015)((Liu, 2017) (Alrowwad et al., 2020)), intellectual capital includes human capital, relation capital, and structural capital.

Organizational performance is measured using the balanced scorecard concept that has been developed by Kaplan and Norton. According to Kaplan and Norton, the balanced scorecard is a performance measurement tool for recording the work plan that will be achieved in the future and its performance achievements by applying a balance between financial and non-financial factors, long-term and short-term strategies, and a balance between internal perspectives (the interests of all parties in the organization) and external (Santoso et al., 2018). The dimensions used in measuring organizational performance are based on the concept of a balanced scorecard by using four perspectives in a balanced manner, namely the financial perspective, customers, internal business processes, and the learning and growth process (Alrowwad et al., 2020).

Human capital is a combination of knowledge, skills, innovation, and the ability of a person to carry out his or her duties so that it can create value to achieve goals (Katili et al., 2019). Human capital is an essential component of the intellectual capital process and a driving force for the other two components of intellectual capital (Alrowwad et al., 2020)(Bakshi, 2015). Human capital includes knowledge, skills, innovation, attitudes, behaviors, and the ability of employees to develop (Liu, 2017). Based on this, the dimensions that will be used in the research include knowledge, skills, and attitudes.

Relational capital is the ability of employees to build harmonious relationships within the company and between the company and external parties (Liu, 2017). The dimensions that will be used to measure relational capital are teamwork and networking. Roos et al (in Forte, 2017) Describe structural capital as what is left behind in the company when employees return home at night. Structural capital is concerned with the organizational structure and systems that support employee productivity and that remain in the company even when employees leave the organization (Alrowwad et al., 2020) (Bakshi, 2015). Structural capital

or organizational capital is the sum of all assets, and creative abilities of the organization, such as employees' attitudes towards authority, responsibility, and awareness of the organization's core culture (Liu, 2017).

In connection with this and by considering the gap phenomenon of organizational performance decline in SD MM and the previous research gap, the purpose of this study is to find out and analyze the influence of Human capital, Relation capital, and structural capital on the organizational performance of SD MM. The formulation of the problem in this study is as follows :

1. Does human capital affect the organizational performance of SD MM?
2. Does Relation capital affect the organizational performance of SD MM?
3. Does structural capital affect the organizational performance of SD MM?

METHOD

The research design used a quantitative approach to causal relationships, which are relationships that explain the influence of one variable on another variable. The population in this study is all teachers and educators of SD MM. Given that the number of teachers and educators is 44 people, all members of the population are used as samples. So the sampling technique used is saturated.

The type of data used in the study is primary data derived from respondents. The method used in data collection is distributing questionnaires to respondents to fill out. Data was collected from March to April 2024. The questionnaire is closed in nature and contains questions related to respondents' perceptions. Likert scale is used to measure respondents' perceptions related to the variables or indicators studied. The variables measured in the study are organization performance (OP) as an endogenous variable (Y), Human Capital (HC), Relational Capital (RC), and Structural Capital (SC) as an exogenous variable (X1, X2, and X3).

The analytical method used in the study is SEM (Structural Equation Modelling). The software used in data processing and analysis is SPLS (Smart Partial Least Square). PLS (Partial Least Squares) is an alternative model to covariance-based SEM. PLS is used for causal predictive analysis in complex conditions. The testing steps of PLS analysis in general are designing a measurement model (outer model), conducting validity and reliability tests, designing structural models (inner models), and conducting hypothesis tests. Figure 1 depicts the conceptual model of this research. Based on this framework, the hypotheses are presented as follows:

H1: Human capital affects the organizational performance of SD MM
H2: Relational capital affects the organizational performance of SD MM
H3: Structural capital affects the organizational performance of SD MM

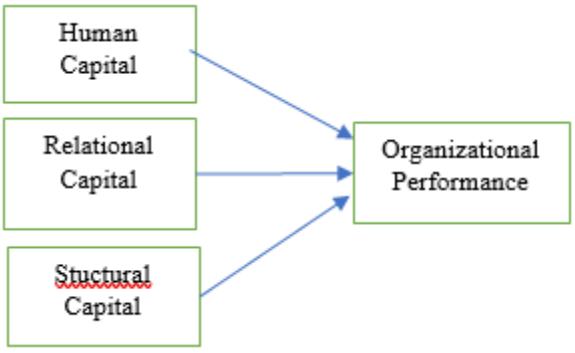


Figure 2: Research Conceptual Framework

RESULTS AND DISCUSSION

The respondents were all SD MM employees who were permanent employees and totaled 44 people. The majority of respondents are teachers with 77.3%. All respondents are Muslims, with the majority of educational backgrounds being bachelor's degree graduates, which is 75%. Judging by gender, respondents were dominated by women at 65.9%, while in terms of age around 71% were aged between 30 – 50 years. Based on the length of work experience, the dominance of the length of work between 5 – 20 years is 72.7%.

Validity and Reliability Test

The initial model uses 3 indicators on the Human Capital variable, 6 indicators on the Capital Relation variable, 5 indicators on the Structural Capital variable, and 9 indicators on the Organization Performance variable. Based on data processing at the first stage, there are several invalid indicators. Invalid indicators are removed, especially those with outer loading values below 0.7. Elimination through 3 stages of modeling, so that the fourth model used 3 indicators on the Human Capital variable, 4 indicators on the Capital Relation variable, 4 indicators on the Structural Capital variable, and 5 indicators on the Organizational Performance variable. The stages of removing some indicators through several models can be seen in Table 1.

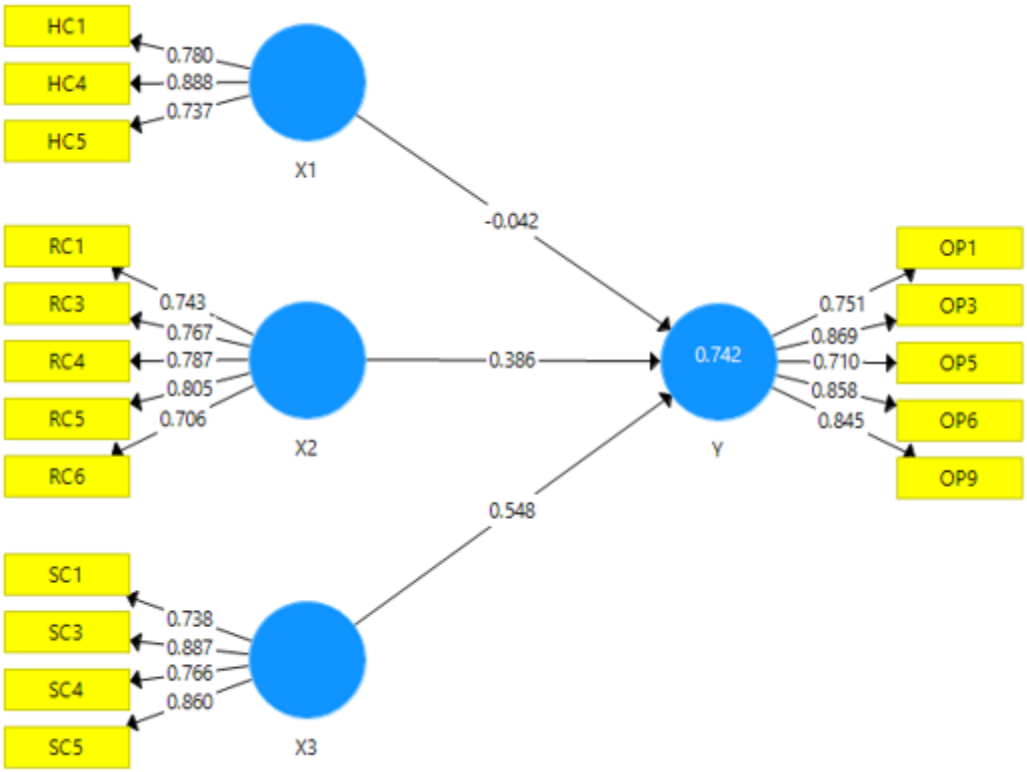
Table 1. Outer Loading

Variable	Indikator	Outer Loading			
		Model 1	Model 2	Model 3	Model 4
X1 (Human Capital)	HC1	0.679	0.676	0.735	0.780
	HC2	0.609	0.619	-	-
	HC3	0.591	-	-	-
	HC4	0.805	0.816	0.841	0.888
	HC5	0.675	0.683	0.719	0.737
	HC6	0.672	0.677	0.678	-
X2 (Relation Capital)	RC1	0.736	0.748	0.743	0.743
	RC2	0.512	-	-	-
	RC3	0.766	0.759	0.759	0.767
	RC4	0.772	0.767	0.777	0.787
	RC5	0.802	0.802	0.808	0.805
	RC6	0.711	0.731	0.720	0.706
X3 (Structural Capital)	SC1	0.736	0.738	0.735	0.738
	SC2	0.619	0.616	-	-
	SC3	0.883	0.881	0.888	0.887
	SC4	0.780	0.782	0.768	0.766
	SC5	0.810	0.811	0.860	0.860
Y (Organization Performance)	OP1	0.669	0.689	0.701	0.751
	OP2	0.724	0.718	0.694	-
	OP3	0.850	0.851	0.835	0.869
	OP4	0.628	0.630	-	-
	OP5	0.758	0.755	0.749	0.710
	OP6	0.836	0.840	0.865	0.858
	OP7	0.591	-	-	-

Variable	Indikator	Outer Loading			
		Model 1	Model 2	Model 3	Model 4
	OP8	0.639	0.638	0.663	-
	OP9	0.778	0.789	0.811	0.845

Source: S-PLS Data Processing Results, 2024

The fourth model used as a measurement model is shown in Figure 2. Based on Figure 3 it can be seen that the outer loading value of all indicators is above 0.7 which means that all indicators used in the new model are valid.



Source: Output S-PLS, 2024

Figure 2. Path Coefficient Model

Based on Table 2 it can be seen that the value of AVE (Average Variance Extracted) is above 0.5. This means all variables are in a valid condition. When viewed from Cronbach's Alpha, then the CA value above 0.7 means all variables are reliable. Likewise, the measurement of composite reliability and rho_A shows that all variables are in reliable condition because the value is above 0.7.

Table 2. Discriminant Validity and Reliability

	AVE	Cronbach's Alpha	rho_A	Composite Reliability
X1	0.647	0.734	0.801	0.845
X2	0.581	0.819	0.823	0.874
X3	0.665	0.831	0.849	0.887
Y	0.655	0.866	0.879	0.904

Source: S-PLS Data Processing Results, 2024

R Square, Predictive Relevance dan GoF Test

Table 3. R Square

	R-Square	R-Square Adjusted
Y (Organizational Performance)	0.742	0.722

Source: S-PLS Data Processing Results, 2024

Based on Table 3 it can be seen that R square Y is 0.742. This shows that Y is affected by X1, X2 and X3 by 74.2%. The R-square value of Organizational Performance is 0.742 which means it indicates a strong structural model.

Predictive Relevance Value (Q2)

Q2 = 1 – (1 - R2)
= 1 – (1- 0.742)
= 1 – 0.258
= 0.742

Meanwhile, a Q2 value of 0.742 means greater than 0 and indicates a model that has predictive relevance. A Q2 value of 0.742 indicates strong predictive relevance.

The goodness of fit index (GoF) test is performed to verify the combined performance of the outer and inner models, which is achieved by the following calculation:

GoF = $\sqrt{AVE\ x\ R2}$
GoF = $\sqrt{0.655\ x\ 0.742}$
GoF = $\sqrt{0.486}$
GoF = 0.697

Ghozali and Latan (2020) state that 0.1; 0.25; and 0.36 specify the criteria for small, medium, and large GoF values. Based on the calculation results, the GoF value was determined to be 0.697, which indicates that the overall performance of the combined external and structural models is good, as the Goodness of Fit Index (GoF) value is greater than 0.36 (large GoF).

Hypothesis Testing

Table 4. Hypothesis Test

	Original Sample	Sample Mean	Standard Dev	t-Statistics	P Values	Result
X 1--> Y	-0.042	-0.033	0.141	0.295	0.768	Rejected
X 2--> Y	0.386	0.410	0.168	2.292	0.022	Accepted
X3 --> Y	0.548	0.526	0.197	2.777	0.006	Accepted

Source: S-PLS Data Processing Results, 2024

Table 4 shows the direct relationship between exogenous variables and endogenous variables. Table 4 can be seen from two aspects, the first is the nature of the relationship between variables, positive or negative which can be seen from the original sample. The second is significant which can be seen from the t count and P Values. The relationship is significant if the calculated t is greater than 1.96 or the P value is below 0.05. Table 4 shows that the relationship of exogenous variables (X1) with endogenous variables (Y) is negative, while the relationship of exogenous variables (X2 &; X3) with exogenous variables (Y) is positive

Based on Table 4 it can be seen that the P values value of relationship X1 with Y exceeds 0.05. Likewise, the calculated t-value is less than 1.9. This shows that X1 does not affect Y, meaning that human capital does not affect organizational performance. Meanwhile, a significant relationship is obtained between variables X2 and X3 to Y, because the

calculated t is greater than 1.96 and the P value is less than 0.05. Further interpretations of Table 4 are:

1. Human capital has a negative and insignificant effect on organizational performance of SD MM (hypothesis rejected).
2. Relation capital has a significant positive effect on the organizational performance of SD MM (hypothesis accepted).
3. Structural capital has a significant positive effect on the organizational performance of SD MM (hypothesis accepted).

The results of data processing show that human capital has a negative relationship with organizational performance but is not significant. Thus, hypothesis 1, which states that human capital has a positive and significant impact on organizational performance, is rejected. This shows that high or low human capital as measured by the dimensions of knowledge, abilities, and attitudes possessed by teachers and staff does not affect the organizational performance of SD MM. The insignificant negative effect may have come from the majority of respondents who are dominated by senior age. 71% of respondents are between 30 - 50 years old. Senior teachers at SD MM have certainly received adequate training according to their working period. Based on the explanation of the School Head of SD MM, the program, the teachers receive training 2 times a year. Training can be technical or non-technical (e.g. management or leadership). An adequate amount of training will improve the ability of teachers.

The results of research showed that relational capital has a significant positive effect on organizational performance. Thus the formulated hypothesis is acceptable. This shows that relational capital can improve the organizational performance of SD MM. Based on Table 4 the constant value is 0.386, which means that for every one-unit increase in Relational Capital, Organizational Performance increases by 0.196 units. Increasing the Relational Capital Human Resources of SD MM Organization will improve Organizational Performance. The results of this study have implications that the management of SD MM needs to motivate teachers and administrative staff to always maintain internal teamwork and maintain relationships with external parties such as student guardians.

The results also show that structural capital has a significant positive impact on organizational performance. Thus the formulated hypothesis is acceptable. This shows that structural capital can improve the organizational performance of SD MM. Based on Table 9 the constant value is 0.548, meaning that every increase in one unit of Structural Capital will increase Organizational Performance by 0.548 units. The implication of the results of this study is the need for management to maintain the climate so that teachers and administrative staff can still maintain organizational culture and responsibility for their tasks.

CONCLUSION

Based on the results of research and discussion, the results of the study are, that the organizational performance of SD MM is positively and significantly influenced by Relational Capital and Structural Capital. Meanwhile, human capital does not affect the performance of SD MM. This implies that increasing the relational capital of teachers will improve the performance of SD MM. Likewise, increasing the structural capital of teachers will be able to improve the performance of SD MM. Meanwhile, human capital does not play a role in improving the organizational performance of SD MM. Because organizational performance can have a positive impact on organizational sustainability, by strengthening the relational capital and structural capital of teachers, organizational sustainability can be maintained.

REFERENCES

Alrowwad, A., Abualoush, S. H., & Masa'deh, R. (2020). Innovation and intellectual capital

as intermediary variables among transformational leadership, transactional leadership, and organizational performance. *Journal of Management Development*, *39*(2), 196–222. https://doi.org/10.1108/JMD-02-2019-0062

Andriana, D. (2014). Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Perusahaan. *Jurnal Riset Akuntansi Dan Keuangan*, *2*(1), 251–260.

Aprilyani, R. V. D., Susbiyani, A., & Aspirandi, R. M. (2020). Pengaruh Capital Employed, Human Capital, Structural Capital Terhadap Kinerja Keuangan Pada Perusahaan Perbankan Yang Terdaftar di BEI tahun 2017-2020. *Jurnal Akutansi Profesi*, *11*(2), 330–338. https://doi.org/10.35327/gara.v18i1.744

Bakshi, H. C. P. (2015). International Journal of Bank Marketing Examining intellectual capital and competitive advantage relationship: role of innovation and organizational learning. In *Marketing Intelligence & Planning* (Vol. 33, Issue 3). http://www.emeraldinsight.com/doi/10.1108/EUM0000000001122

Hasmirati, & Akuba, A. (2022). Dampak Human Capital , Structural Capital , Dan Costumer. *Jurnal Aplikasi Manajemen Dan Inovasi Bisnis*, *4*(2), 201–215.

Katili, P. B., Maulida, D., & Ummi, N. (2019). Pengaruh Intellectual Capital Terhadap Kinerja Keuangan. *In Search*, *18*(1), 69–82. https://doi.org/10.37278/insearch.v18i1.138

Liu, C. H. (2017). Creating competitive advantage: Linking perspectives of organization learning, innovation behavior, and intellectual capital. *International Journal of Hospitality Management*, *66*, 13–23. https://doi.org/10.1016/j.ijhm.2017.06.013

Muzakki, K. (2020). Analisis Pengaruh Human Capital dan Structural Capital terhadap Kinerja Perusahaan. *Journal of Research and Technology*, *6*(2), 267–276. https://doi.org/10.55732/jrt.v6i2.369

Noor, A., & Nawangsari, L. C. (2021). The Effect of Intellectual Capital on Organizational Sustainability Through Knowledge Management on Employees of Pd Dharma Jaya in Regionally Owned Enterprises of Dki Jakarta. *European Journal of Business and Management Research*, *6*(3), 226–235. https://doi.org/10.24018/ejbmr.2021.6.3.909

Santoso, E. B., Fiernaningsih, N., & Murtiyanto, R. K. (2018). Pengaruh Budaya Organisasi Terhadap Kinerja Usaha Kecil. *Jurnal Administrasi Dan Bisnis*, *12*(1), 40–45. https://doi.org/10.34149/jmbr.v11i1.55

Saragih, E. E. (2017). Pengaruh Intellectual Capital (Human Capital, Structural Capital dan Customer Capital) Terhadap Kinerja Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *JRAK*, *3*(1), 1–24.

Sugiono, E., Efendi, S., & Sumardi, R. (2019). Peran inovasi sebagai mediasi hubungan antara modal intelektual dengan keunggulan bersaing ukm. *Jurnal Riset Manajemen Dan Bisnis (JRMB) Fakultas Ekonomi UNIAT*, *4*(S1), 543–556.

Suryani, N. K., & FoEh, J. E. (2019). *Manajemen Sumber Daya Manusia: Tinjauan Praktis Aplikatif*. Nilacakra.

Wusko, A. U., & Alfianto, E. A. (2022). Pengaruh Social Capital dan Human Capital Terhadap Kinerja UMKM yang Tergabung pada Sukorejo Smart. *Jurnal Sketsa Bisnis*, *9*(1), 91–101.

Yusliza, M. Y., Yong, J. Y., Tanveer, M. I., Ramayah, T., Noor Faezah, J., & Muhammad, Z. (2020). A structural model of the impact of green intellectual capital on sustainable performance. *Journal of Cleaner Production*, *249*, 119334. https://doi.org/10.1016/j.jclepro.2019.119334