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Ronny Siahaan

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Meilani Purwanti MA (Finance), Department of Accounting, Universitas Teknologi Digital Cibogo Indah 3 Makerjaya Rancasari, Bandung, West Java, 40292, Indonesia meilanipurwanti@digitechuniversity.ac.id ORCID ID: https://orcid.org/0009-0007-6238-9890

PhD (Islamic Studies), Tarbiyah Faculty, Universitas Islam Negeri Sunan Kalijaga Yogyakarta JI. Laksda Adisucipto, Papringan Caturtunggal, Kecamatan Depok, Kabupaten Sleman, Daerah Istimewa Yogyakarta, 55281, Indonesia, masminafif@iainkudus.ac.id ORCID ID: https://orcid.org/0009-0005-6839-766X



MA (Finance), Department of Economics, Pelita Harapan University Vermont Parkland Blok G2, No.9 BSD Serpong Tangerang Selatan, 15322, Indonesia siahaan.ronny@gmail.com ORCID ID: https://orcid.org/0009-0003-0945-8333 Khairiah Khairiah

> MA (Finance), Department of Islamic Religious Education, Faculty of Tarbiyah and Tadris, Universitas Islam Negeri Fatmawati Sukarno Bengkulu Pagar Dewa, Selebar, Bengkulu City, Bengkulu, 38211, Indonesia khairiah@mail.uinfasbengkulu.ac.id ORCID ID: https://orcid.org/0000-0002-6268-5127







Dudung Ahmad Suganda MA (Public Administration), Department of Social and Political Science, Al-ghifari University Cisaranten Kulon Street No. 104, Arcamanik District, Bandung City, 40293, Indonesia dudungahmadsuganda@unfari.ac.id ORCID ID: https://orcid.org/0009-0000-2304-6982

> Sharofiddin Sharipov MA (Sciences), Independent Researcher, Department of Economics, Tashkent State Pedagogical University Tashkent, 100070, Uzbekistan editory1001@gmail.com ORCID ID: https://orcid.org/0000-0002-1273-5667



Education management impact on the financial performance of companies: a case study of IT companies in Indonesia

Abstract. Education management is one of the influencing factors in the performance of companies in various fields, including information technology. The main goals of this research are to investigate the effect of organizational learning on the financial performance of companies through the innovation process and to investigate the effect of organizational learning with innovation and innovation with financial performance. Therefore, the present study seeks to investigate the effect of education management with the mediating role of organizational learning ability and innovation on financial performance of the company. The statistical population of this descriptive research is the managers of companies active in the field of information technology in Indonesia, and the sampling method in this research is available sampling. Statistical data was prepared by distributing a questionnaire among the managers and senior experts of Indonesian IT companies. Inferential and structural equation modeling method has been used.

It should be mentioned that the results of statistical analysis show a positive and significant effect of education management on organizational learning ability and business innovation of the company, a positive and significant effect of organizational learning ability on business innovation and a positive and significant effect of organizational learning ability and also business innovation on financial performance. In addition, the results show the mediating role of organizational learning ability and business innovation in the relationship between education management and financial performance. After analyzing the data using LISREL software, all three hypotheses proposed in the research were accepted.

Keywords: Education Management; Financial Performance; IT Company; Business Innovation **JEL Classifications:** E24; E41; E64; I18; J28; J31

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1. Introduction and Brief Literature Review

Organizational learning is a factor in the organization that has a direct and indirect effect on the financial performance of the organization. The indirect effect is the key factor of organizational learning through innovation. One of the effective factors in the emergence of innovation in the organization is the creation of a culture among employees in which everyone strives to grow others and help the progress of the organization by influencing each other (Lukić, 2022; Razmara et al., 2022). According to its nature, innovation deals with the unknown and has high risk. Organizational learning is a continuous, dynamic and interactive process between individuals, groups and organizations. This learning has both an individual and a social dimension; Its individual dimension refers to individual knowledge; The knowledge that a person transmits and its social dimension refers to shared knowledge; The knowledge that all members in the organization transfer (Riinawati et al., 2021). The primary researchers of learning theory believe that learning occurs at the individual level and that people learn as organizational agents. Organizational learning facilitates knowledge transfer and knowledge sharing between organizations and leads to the improvement of financial performance of companies. In previous studies, researchers came to the conclusion that there is no possibility that organizational learning has the same effect on the company's financial performance in all conditions, and all learning strategies do not always lead to improved performance. Researchers have found that the relationship between learning and performance depends on other factors as well. For example, Javed et al. (2020) found that the effect of corporate learning on its performance depends on characteristics such as the longevity of the organization; Demir et al. (2021) believe that organizational governance mediates the relationship between inter-company learning and its benefits. These studies show that the effect of learning on performance may be strengthened in certain conditions and weakened in other conditions. For this reason, it is desirable to use contingency theory to investigate this relationship more precisely. Contingency theory emphasizes the selection of appropriate cooperation conditions to increase learning benefits and also explains the role of innovation as mediating knowledge. In the continuation of this article, we examine the relationship between organizational learning and financial performance, as well as the role of innovation.

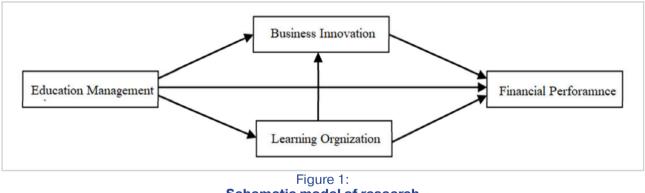
In a general view, it can be said that educational management is an activity whose purpose is to create, transfer, change and react to new ideas. The development of learning in its various forms (individual, team and organizational) is a very important factor in the economic success of the organization and is known as one of the important indicators of performance (Kim & Kim, 2021) in today's interconnected world, with complex and dynamic businesses, Giving tasks requires learning, and in the future, there will be superior organizations that know how to use the commitment and capacity of employees in order to better identify their demands (Alwan & Risman, 2023). An organization that is committed to learning is placed in the service of building the future (Pramono et al., 2021). Probably, by gaining the ability to change technology (Muslimin et al., 2023), it will be able to acquire the ability to innovate in products and processes, and subsequently, this ability will lead to the improvement of its performance (Inayat et al., 2023); In other words, innovation is an important force for the development of companies and improving their performance, and the ability to innovate is the most important characteristic that determines performance (Moro et al., 2023). The way of organizational learning and educational management are, therefore, in this research, we must find out whether organizational learning has an effect on their financial performance or not. The main purpose of this research is to determine the direct relationship between educational management and financial performance of companies through the process of organizational learning in Indonesian information technology companies and to determine the relationship between organizational learning and business innovation and financial performance of organizations in the mentioned companies.

Hypotheses

- Education management with the mediating role of organizational learning ability has a positive and significant effect on the company's financial performance.
- Education management has a positive and significant effect on business innovation.
- Business innovation has a positive and significant effect on the company's financial performance.

2. Method

In terms of its purpose, this research is among applied researches and in terms of its nature and method, it is considered a part of descriptive-survey researches. This research is due to the investigation of the relationship between variables of the correlation type. The statistical population in this research includes 168 companies active in the IT field in Indonesia. In this research, in order to collect data in order to make decisions about research hypotheses, available sampling was done from among the statistical population. Due to the limited statistical population, Morgan's table was used to calculate the statistical sample size. Descriptive and inferential statistics are used for data analysis. After collecting the data, the descriptive statistics techniques are used to describe the data. In this regard, frequency distribution tables and calculation of central and dispersion indicators such as mean, median, mode, standard deviation, etc. are used. Research hypotheses are examined in inferential statistics. The statistical method used in this research to test the hypotheses is the structural equation model using LISREL software. A model of research is shown in Figure 1.



Schematic model of research Source: Made by the authors

3. Results

Five dimensions (human resource management, learning ability, customer focus, business innovation and financial performance) have been used to evaluate and measure the variable of education management on the performance of companies. To measure the commercial innovation variable, four items have been used at the level of rating measurement in the form of a five-point Likert scale. A five-point Likert scale has been used to measure the financial performance of the company. These variables are designed in the form of a Likert scale, after taking the average of a row of ranked items, the results are presented in Table 1.

Table 1:

Descriptive values of research variables

Variable	AVE	SD	Crookedness	Elongation	Min	Max
Education management	3.22	0.593	-0.544	0.665	1.41	4.43
Business Innovation	3.21	0.701	-0.112	0.922	1	5
Financial performance	3.15	0.867	0.123	0.564	1	5
Learning ability	3.41	0.476	-0.114	0.183	2	4.66
HRM	3.78	0.825	-0.801	1.130	1	5
Costumer	3.26	0.701	-0.234	1.634	1	4.80

Source: Authors' own research

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To check the current status of the variables and the dimensions of the research variables, the average points obtained will be compared with the average value (3). One-sample Student's t-test will be used for this test. The results of this test are presented in Table 2.

According to Table 2, the significance level of the test for all research variables is less than 0.05. As a result, at the 95% confidence level, the assumption of equality of average scores is confirmed. According to the average of these variables, it is concluded that the average scores of education management (6.67) and business innovation (4.91) have the lowest t values. As a result, at the confidence level of 95%, the assumption of equality of average scores for research variables is accepted

Table 2:

The result of the t test to check the status of the variables

Variable	T-value	DoF	Sig.	Results
Education management	6.67	216	0.001	confirmed
Business Innovation	4.91	216	0.001	confirmed
Financial performance	6.56	216	0.001	confirmed
Learning Ability	5.67	216	0.003	confirmed
HRM	4.88	216	0.002	confirmed
Costumer	5.56	216	0.001	confirmed

Source: Authors' own research

The first main hypothesis of the research shows that training management with the mediating role of organizational learning ability has a positive and significant effect on the company's financial performance. We will use the output of the software to test the significance of the sub-hypotheses. The path coefficients and the results related to their significance are given in Table 3.

The first sub-hypothesis of the research shows that total quality management has a positive and significant effect on organizational learning ability. According to Table 3, the statistical significance between the education management variable and organizational learning ability is equal to 6.44, which is greater than the value of 96.1 and indicates that the relationship between comprehensive quality management and organizational learning ability is significant at the 95% confidence level. Also, the path coefficient between these two variables is equal to 0.66 and shows the impact of the comprehensive quality management variable on organizational learning ability. Therefore, the first sub-hypothesis of the research is confirmed. Likewise, as shown in the table, all 3 hypotheses have been confirmed with path coefficients of 0.66, 0.57, and 0.49, respectively.

Table 3:

Hypotheses testing results and path coefficients

	Path		Path coefficients	Significance	Results
No	From variable	To variable		_	
1	Education management	Financial status	0.66	6.44	confirm
2	Education management	Business innovation	0.57	5.87	confirm
3	Business innovation	Financial status	0.49	3.22	confirm

Source: Authors' own research

4. Conclusion

In this article, the impact of educational management through organizational learning on the financial performance of the company and innovative business was evaluated, and in general, the following results and suggestions are presented:

Companies can use new information technology solutions such as Collaboration Suite to reduce time costs for internal and external communication. These solutions provide the user with all kinds of communication methods such as e-mail, video conference, document sharing space, telephone and fax, etc. They spend themselves. The specialized IT team can connect the software in the company that are produced in a standard way with settings to make it more efficient and this can increase the speed of information transfer between units. The meaning of standard production is to support standard communication protocols. IT tools such as shared data space should be used so that different teams can easily share their information with each other. In this space, the information technology unit can make policies regarding the amount of dedicated space for each unit or each person, and can even determine the presence or absence of employees' access to this space. Managers of each unit should explain the goals of the team and the entire organization to their employees. For this purpose, managers can cover this goal by producing a banner on which the general goals of the unit and the organization are written, or they can inform about the paragraphs related to the goals of the organization and the unit in the form of monthly emails.

Companies should conduct formal market research in the field of customer surveys regarding the company's current products and services. In this survey, customers can be polled about where improvements can be made, which will be included in the company's plan for minor changes in the product and service. The human resources unit should list the expertise available in the information technology unit so that when necessary, they can benefit from the expertise available inside the company. In fact, the identification of this expertise can give the IT manager the possibility to plan more accurately and based on internal capabilities to implement more developed solutions. In addition to their job description, incentive items should be considered to encourage the colleagues of the IT unit to participate in various organizational matters. In fact, the feeling should be conveyed to the employees that the organization is aware of the efforts of its employees. Companies should develop their market research unit. For this purpose, it is suggested that one person collects data related to competitors and customers, including the new demands of customers, on a full-time basis at the market level. It is suggested that in the company's CRM system, an access to the research and development unit is given and all unanswered customer needs are reported with a specific label for this unit so that this unit can take action regarding the initial feasibility. According to the market conditions, it is suggested to create cloud infrastructure so that all employees can connect to this infrastructure from anywhere with any device and carry out their activities. The existence of these infrastructures will ensure that in addition to the maximum benefits of remote working of the employees, their activities and the company will not be interrupted.

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