Building the Effectiveness of Knowledge Sharing Through Organizational Culture, Structure, and Strategic Resources

M. Muhardi\textsuperscript{a}, N. Nurdin\textsuperscript{b}, A. Irfani\textsuperscript{c}, \textsuperscript{a,b,c}Faculty of Economics and Business, Universitas Islam Bandung, Indonesia, Email: \textsuperscript{a}muhardi.zainudin@gmail.com

The purpose of this study is to analyze how organizational culture, organizational structure, and strategic resources contribute to building knowledge sharing effectiveness. This study uses a statistical approach to analyze the importance of the contribution of organizational culture, organizational structure, and strategic resources in building effective knowledge sharing. The study was conducted at two boarding schools in Indonesia. Questionnaires and interviews were the techniques used in primary data collection. Furthermore, the data obtained are processed statistically using multiple regression. This article draws the conclusion that organizational culture, organizational structure, and strategic resources contribute positively and significantly in building the effectiveness of knowledge sharing. Organizational culture that has religious and educational value, creates synergy, and strategic resources are conducive to building effective knowledge sharing in efforts to develop human resources. The effectiveness of knowledge sharing and the various factors that influence it can not only be developed in boarding schools as examined in this paper, but the effectiveness of knowledge sharing can also be built in non-educational institutions, including other non-profit institutions.

\textbf{Key words:} Knowledge sharing, effectiveness, culture, structure, strategic resources.
Introduction

The existence of human resources is the key to success for every institution. More broadly, the success of a country is determined by the important role of its human resources. This idea is applicable for Indonesia as a country. All countries are concerned with education, therefore educational institutions play an important role in building better human resources. The model of knowledge sharing is a strategy in developing human resources. The practice of knowledge sharing is a model of social exchange, in the sense of mutual knowledge sharing between interested people (Casimir, Lee, & Loon, 2012). Emotional exchange occurs in knowledge sharing behaviour (Wang, Wang, & Lu, 2017). Therefore, the existence of people in an organization determines success in the practice of knowledge sharing (Cyr & Choo, 2010). All organizations and institutions carry out knowledge sharing practices. Whether the knowledge sharing practiced in the organization has been carried out effectively, and what factors build the effectiveness of the knowledge sharing practices, requires further study.

Previous research has proven that organizational culture significantly influences the practice of knowledge sharing (McAdam, Moffett, & Peng, 2012; Amayah, 2013; Chang, Hsu, Shiau, & Tsai, 2015; Stadler & Fullagar, 2016). Organizational structure is another factor that also influences the effectiveness of knowledge sharing practices (Yong-Mi, K., Newby-Bennett, D., & Song, 2012). The policies and practices of knowledge sharing are also positively and significantly influenced by the values and knowledge of leaders in the top management of an institution (Hsu & Wang, 2008).

Research on the practice of knowledge sharing in various institutions, specifically for manufacturing and non-manufacturing organizations is extensive. The practice of knowledge sharing in boarding school institutions is minimal. Boarding schools are one of the educational institutions in Indonesia. These institutions are considered to have an important contribution in building human resources through the implementation of education. Therefore, the practice of knowledge sharing as a strategy for developing human resources in boarding schools, and the various factors that build the effectiveness of knowledge sharing are an important reasons to conduct this research, which so far has not been done empirically.

Based on this description, the problem of this research is focused on the effectiveness of the practice of knowledge sharing, and the various factors that influence it. Therefore the purpose of this study is to analyze how important factors that contribute to building the effectiveness of knowledge sharing, especially in the practice of knowledge sharing at boarding schools as one of the educational institutions in Indonesia. This includes organizational culture, organizational structure, and strategic resources.
Method

The research design starts from identifying the necessity of establishing research into the effectiveness of the practice of knowledge sharing as a strategy for developing human capital. From identification, the research objectives are determined. The intention of this research is to analyze the contribution of organizational culture, organizational structure, and strategic resources in building the effectiveness of knowledge sharing. The method used in this research is descriptive verification. The object of research is boarding schools as one example of educational institutions in Indonesia. It is argued that the contribution of boarding schools is considered significant in developing human resources, as boarding school institutions exist in every province in Indonesia. The research approach used in this study is a survey of two entrepreneurship-based boarding schools in Sukabumi and Garut, Indonesia.

The types of data needed in this study are primary and secondary. The primary data was obtained through interviews and structured questionnaires. The secondary data was obtained from various relevant documents. The data obtained was then processed using statistical analysis tools, namely, multiple regression. From the test results are statistically analyzed, then described to evaluate the level of significance of research variables. The primary purpose of this is to analyze how the contribution of organizational culture, organizational structure, and strategic resources as an independent variable, in building the effectiveness of the practice of knowledge sharing as a dependent variable in this study.

Literature Review

Human resource management is the foundational theory explored in this research. One of the operational functions of human resource management is the development of human resources. This can be achieved through the concept of knowledge management (Qureshi & Ghani, 2015; van Deventer, Kruger, & Johnson, 2015; Muthuveloo, Shanmugam, & Teoh, 2017; Fowlin & Cennamo, 2017; Fernandes, 2018). Therefore, the middle theory used is knowledge management. Knowledge sharing is an aspect of knowledge management (Wu, Liao, & Dai, 2015; Cheng & Lee, 2016; Odunewu & Haliso, 2019). Knowledge sharing practices improve organizational and individual performance (Kürşad, 2015), whereas the application theory in this study refers to various research variables which include knowledge sharing as the dependent variable, and the independent variables are organizational culture, organizational structure, and strategic resources.

The theoretical and empirical reviews for this research are needed in strengthening the analysis of the significance of the influence of organizational culture, organizational structure, and strategic resources in building the effectiveness of knowledge sharing. Knowledge is one of the intangible assets that is very valuable for the organization (Saeidi,
Mohammadi, Sedighi, & Malekmahmoudi, 2017; Ying-yen, 2019). Knowledge sharing is important for both groups and individuals in organizations (Swift, Balkin, & Matusik, 2010; Heo & Toomey, 2015; Kim, Lee, & Yun, 2016; Akgün, Keskin, Ayar, & Okunakol, 2017; Ergün & Avci, 2018; Sitar, Bogilović, & Pahor, 2019; Davila, Varvakis, & North, 2019; Imran, Fatima, Aslam, & Iqbal, 2019; J.-H. Cheng, Huang, Zhao, & Wu, 2019). However, effective knowledge sharing is more valuable than just the practice of knowledge sharing in organizations. Effective knowledge sharing is built on organizational culture (Christensen, 2007; Shao, Wang, & Feng, 2015; Tan, 2016; Dong, Hung, & Cheng, 2016; Caruso, 2017; Burnette, 2017), organizational structure (Wahba, 2015), and strategic resources including human resources (Zhang, Zhou, & Zhang, 2016; Liou, Chihi, Yuan, & Lin, 2016; Hu & Zhao, 2016; Dezdar, 2017), technology availability (Lee, Park, & Lee, 2015; Mura, Lettieri, Radaelli, & Spiller, 2016; Oladipupo & AbdulRahman, 2018; Sabeeh, Syed Mustapha, & Mohamad, 2018; Arain, Bhatti, Ashraf, & Fang, 2018; de Castro, 2019; de Castro, Nagano, & Ribeiro, 2019) and other strategic resources.

Results and Discussions

The following is an empirical description of the effectiveness of knowledge sharing as a dependent variable, and the various factors that build it. This includes organizational culture, organizational structure, and strategic resources as independent variables. These variables reveal the importance of organizational culture, organizational structure, and strategic resources in building the effectiveness of knowledge sharing in boarding schools as an educational institution.

**Effectiveness of Knowledge Sharing**

Knowledge sharing in organizations is an important process that influences knowledge creation, organizational learning, and performance (Bartol & Srivastava, 2002). The effectiveness of knowledge sharing in this study is measured by the relevance of the knowledge shared, the level of understanding, the determination of time for sharing knowledge, the clarity of delivery, and the level of application of knowledge. From the results of this study, respondents considered that the knowledge shared or obtained from boarding school as an educational institution, was relevant to the knowledge needed in real-life situations. Furthermore, in the aspect of ease of understanding knowledge, respondents considered it easy to understand the knowledge conveyed by teachers in this educational institution. The teacher not only conveys conceptual knowledge, but also provides examples of its application in everyday life. In terms of determining the appropriate time to share knowledge, the practice of knowledge sharing is formally created on a scheduled basis. Scheduling is per day, per week, per month, even scheduling for each year. Structured scheduling is one method aimed at achieving the effectiveness of knowledge sharing in this
educational institution. Next is related to the clarity in the delivery of knowledge, which is shown by the placement of teachers in accordance with their fields and expertise. In a boarding school, a teacher is given focused authority, so that they understand what the teacher should convey. The next component is applying knowledge that respondents rated is easy to apply. This statement is supported by the practice of transferring knowledge not only explicitly (explicit knowledge), but also more dominantly which is the nature of tacit knowledge, as happened in the Al-Fath Zikir boarding school. The leader of the boarding school is a practitioner and an academic who currently manages the school from elementary school, middle school, religious high school. The leader is also a practitioner of social entrepreneur.

Of the five dimensions of the effectiveness of knowledge sharing, the dimension of ease of application of knowledge is the highest value. This condition is found from the empirical side, because the teachers in boarding school education are those who are not only academics, but also as practitioners who provide role models to their students. Boarding schools, in general, as an educational institution are considered to practice an effective knowledge sharing model. This is due to their learning strategies and development of its human resources. Understanding that boarding school leaders are also teachers in their boarding school, and teachers who are daily assigned the task of authority to share their knowledge, allows teachers to not only provide explicit knowledge but also tacit knowledge.

**Organizational Culture**

Each institution has an organizational culture that may differ from one institution to another, or between one industry's culture with another industry. Organizational culture in this study, is focused on the culture of boarding schools which are considered as determinants in building the effectiveness of knowledge sharing in boarding school educational institutions. In this study, various dimensions of organizational culture include learning systems in boarding schools, learning environments or atmosphere, learning models, boarding school leaders' concern for student education, and a culture of learning discipline in boarding schools.

The results of the assessment of respondents from this study indicates that the learning systems in boarding schools is based on motivating students to progress. This condition is because in boarding schools, the students are sheltered by obeying rules and systematic scheduling, so that it is easy to understand how the inputs, processes, and outputs of learning outcomes in boarding school education. Another dimension of organizational culture is the learning environment. Respondents assessed that the learning environment in boarding schools makes students and teachers eager to practice knowledge sharing. The atmosphere of a boarding school is created for learning, and by making students friendly in a boarding
School environment, it also conditions boarding schools to be an educational institution that aims to build knowledgeable human resources, based on the values of religiosity. Another dimension of boarding school culture is the learning model that is designed to be easy in the learning process. At the Al-Fath Boarding School, students not only study indoors, but are also balanced with practice while studying in the field. This is because in addition to the Islamic boarding school, Islamic Education also teaches about entrepreneurship and intelligence formation.

Another dimension of boarding school culture that also builds a model of knowledge sharing as a strategy for developing human resources in boarding schools, is the dimension of boarding school leaders' concern for student education, with respondents. Assessments indicate a high level of concern from leaders to participants students. The boarding school leaders also act as teachers who share their knowledge with students directly and routinely in a face-to-face schedule. Boarding school leaders, after each morning prayer, give time for knowledge sharing by creating a dialogue with their students. This can be seen as a form of attention, care, and closeness of boarding school leaders to their students, including the teachers in the Islamic boarding school. The next aspect of boarding school culture is from the level of discipline of learning in the boarding school. Respondents considered that discipline has become a culture in boarding school. Discipline receives important attention and is instilled in students to always be disciplined, especially in learning, to gain knowledge in boarding school.

**Organizational Structure**

The boarding school, as an educational institution, has a formal organizational structure, with a stream of coordination, communication, and supervision that makes it functional. The boarding school managers generally have a family relationship, however professionalism in the workplace remains important. The coordination of relationships that occurs in boarding schools also makes it easier to make decisions, as observed in the boarding school of Al-Fath's remembrance studied. Ease in coordination allowed decisions to be made through deliberations and collective agreements. The ease of coordination is not only concentrated at the level of the boarding school manager, but also to students. Therefore, senior students are often asked to help as mentors for their junior students. This allows knowledge sharing practices to occur that are not only explicit knowledge, but also tacit knowledge. Coupled with the advancement of technology that enters the education system in boarding schools, there is a significant role for technology in building the ease and accuracy of coordinating relationships at boarding schools.

The easy communication of boarding school leaders with teachers and their students facilitates and clarifies the transformation of science in the boarding school environment. The
frequency of formal meetings in the form of scheduled knowledge sharing is done at boarding schools, so that there are no meaningful communication barriers between teachers and students, with communication that has added value for a better life. Good communication is done vertically in the sense of boarding school leaders and teachers, as well as horizontal communication between students because the scope is the boarding school environment. The ease of communication is one of the keys to the success of education at this boarding school. Boarding schools also teach foreign language education, especially Arabic and English, as a tool to facilitate the transformation of knowledge from boarding school leaders and teachers to students, or vice versa to build effective knowledge sharing in boarding schools. Another important aspect related to the organizational structure that supports knowledge sharing, is the existence of an organizational communication model in boarding school institutions. The communication model is two-way, and ethics in communication get important attention. Students are boarded at boarding schools, however the knowledge obtained can also come from outside the boarding school. This is especially relevant for those who take part in collaborative programs through internships to gain knowledge while working. Sources of outside knowledge, in an effort to obtain additional knowledge, is a form of tacit knowledge that is needed by students in boarding schools.

**Strategic Resources**

Effective knowledge sharing can be built with the existence of strategic resources. In this study strategic resources include man (human resources), methods, materials, money, and machine (technology). The “man” represents boarding school leader and other boarding school managers. The “method” is the method of learning used. The “material” is supporting facilities for sharing knowledge. “Money” is educational funding, and “machine” is the educational technology used.

The boarding school leadership for students is an example of this. In everyday life at the boarding school, leaders and teachers are used as role models or references to behave. The ethics and courtesy shown by students is a reflection of the behaviour of boarding school leaders, which serve as a reference or role model for their students. Sharing knowledge through routine meetings every day is carried out by boarding school leaders as a form of support by exemplary boarding school leaders in building quality human resources. In connection with the learning method used as a form of strategic resources, the method of knowledge sharing in boarding schools, according to respondents, was assessed using a fun learning method. The methods of sharpening, caring for, and caring for knowledge sharing are the learning methods used. Another dimension is the teaching and learning facilities at boarding school as a strategic resource dimension which respondents consider to be sufficient. Physically, learning facilities become one that supports comfort in learning, and will determine how education can be carried out properly. The next dimension that is also
very important is the financing of education. In this connection for the boarding schools studied is that education funding is not taken from students, but from entrepreneurial practices undertaken by boarding schools. The boarding school, Zikir al-Fath, has various businesses and is used as the main source for boarding school funding. In this boarding school, students generally do not pay tuition fees, but education fees from boarding school entrepreneurs and invite students to participate in boarding school entrepreneurship activities. Educational technology used by boarding school educational institutions is another dimension of strategic resources that support in building the effectiveness of knowledge sharing. Educational technology is considered by respondents to support the process of knowledge sharing in boarding schools. As an educational institution, boarding schools can follow and take advantage of technological advances that occur, and support the success of the practice of knowledge sharing in the development of human resources.

**The Effectiveness of Knowledge Sharing that is Built through Organizational Culture, Structure, and Strategic Resources**

This paper aimed to answer research questions about how significant organizational culture, structure, and strategic resources build the effectiveness of knowledge sharing, a verification approach was used. The data test equipment used is regression analysis. The calculation of the results show the value of the constant is -0.773, both organizational culture, structure, and strategic resources make a partial contribution that is positive to the effectiveness of knowledge sharing, each of which is 0.331; 0.393; and 0.294. This positive contribution shows that, with an organizational culture built on boarding schools as an educational institution, organizational structures with easy coordination and communication flows, and strategic resources conducive to boarding schools, it can build more effective knowledge sharing practices. The knowledge shared is not only explicit knowledge but also tacit knowledge. The model of knowledge sharing that builds on boarding schools, is a form of transformation of knowledge at boarding schools, where the form of implementation of knowledge sharing generally occurs at boarding schools.

Statistically significant test shows that, the variables that contribute significantly to the effectiveness of knowledge sharing, respectively, are organizational culture (Sig. = 0.012 <0.05), organizational structure (Sig. = 0.001 <0.05), and sources strategic power (Sig. = 0.018 <0.05). Furthermore, to analyze the significance of the three variables, namely organizational culture, organizational structure, and strategic resources simultaneously building the effectiveness of knowledge sharing, it is known from the F value of 31.455 with significance close to zero (Sig. = 0.000). F table value with a real level of 5% is 2.807, obtained a significance value close to zero (Sig. = 0.000) which is smaller than 5%, which means that organizational culture, organizational structure, and strategic resources simultaneously contribute significantly to building effectiveness from knowledge sharing.
Thus, it can be interpreted that, both partially and simultaneously that organizational culture, organizational structure, and strategic resources have a significant role in building the effectiveness of knowledge sharing. The contribution of the three variables in building the effectiveness of knowledge sharing is dominant at 67.2%, while the remaining 32.8% is the contribution of other variables, namely variables not examined in this case that can affect the effectiveness of knowledge sharing.

**Conclusion**

The practice of knowledge sharing occurs in all institutions, including at non-profit institutions as well as at boarding schools as an educational institution. The effectiveness of knowledge sharing on boarding schools is built on a religious and educational organizational culture, organizational structures that create synergy, and conducive strategic resources. Of the three aspects that build the effectiveness of knowledge sharing, it is known that organizational structure is the dominant aspect, then the culture of the organization, and is followed by aspects of strategic resources. This indicates that all aspects are important because they contribute positively and significantly (meaningfully) both partially and simultaneously in building the effectiveness of knowledge sharing practices at boarding school institutions. This means that the practice of effective knowledge sharing in boarding schools is built on organizational culture, organizational structure, and strategic resources.

**Acknowledgment**

The researcher would like to thank the Directorate of Research and Community Service, Directorate General of Research and Technology Strengthening, Ministry of Research, Technology, and Higher Education, who have funded this research for 2019 Fiscal Year. Thank you also to the Research and Community Service Institution of Islamic University Bandung, which has contributed to this research.
REFERENCES


Organizational Learning Capability, Collaboration and Knowledge Sharing. 


Odunewu, A. O., & Haliso, Y. (2019). Knowledge Sharing Behaviour and Librarians Job...


