

Relationship between Knowledge Sharing, Absorptive Capacity, and Innovation Capability: Empirical studies in minimarkets

Sri Raharso

Business Administration Department, Politeknik Negeri Bandung, Bandung, West Java 40559
harsopolban@gmail.com

ARTICLE INFO

Received: (28/1/2021)

Received in revised:
(6/2/2021)

Accepted: (5/3/2021)

Published: (7/6/2021)

Open Access

ABSTRACT

This study aims to identify the relationship between knowledge sharing, innovation capabilities, and absorptive capacity. The study was conducted on 209 employees of a minimarket, in Bandung, West Java. Sampling was done incidentally. Factor analysis produces five factors for which construct validity is acceptable. Empirically, the multiple regression results support the research hypothesis. Knowledge sharing positively and significantly affects innovation capability and absorptive capacity. Furthermore, absorptive capacity partially mediates the relationship between knowledge sharing and innovation capabilities.

Keywords: absorptive capacity, innovation capability, knowledge sharing

1. Introduction

The retail business in minimarket format, in 2020, is facing a tough test because of the Covid-19 pandemic. The decline in growth is the consequence (Aria, 2020; Judith, 2021; Pryanka, 2019; Kuncoro, 2020). Pandemics cause social, economic, political, and technological conditions to change dramatically. It can be a perfect example of the VUCA landscape. An environmental condition characterized by volatile, uncertain, complex, and ambiguous (Nangia & Mohsin, 2020). Unfavorable environmental conditions for business (Bennis & Nanus, 1985).

When the business environment is VUCA in nature, it becomes increasingly difficult for organizations to keep up with the rhythm of change. The solution, knowledge needs to be empowered to gain competitive advantage (Cohen & Levinthal, 1990; Žemaitis, 2014; Rafique et al., 2018; Grant, 1996; Jasimuddin & Naqshbandi, 2019). Knowledge is the most essential component of innovation (Tsai, 2001; Liao et al., 2007; Intan-Soraya & Chew, 2013; Jasimuddin & Naqshbandi, 2019). The effectiveness of knowledge utilization depends on the organization's ability to manage intellectual capital (Chen & Huang, 2009). The ability to mobilize and disseminate knowledge possessed by employees and combine knowledge to learn something that leads to the creation of new products/services/processes is often labeled as innovation capabilities (Kogut & Zander, 1992; Oanh, 2019).

Therefore, for minimarkets to get the optimal benefit from the knowledge, effective knowledge

management is needed. The key to effective knowledge management is knowledge sharing management (Hendriks, 1999; Bock & Kim, 2002; Liao et al., 2007; Velmurugan et al., 2010).

However, in a VUCA environment, business opportunities that arise continuously and competition are increasingly fierce, causing the knowledge held by the organization to be insufficient (Rafique et al. 2018). Minimarkets need to upgrade the knowledge base by bringing in knowledge from outside the organization (Cohen & Levinthal, 1990; Grant, 1996; Rafique et al., 2018). Minimarkets need the ability to acquire, assimilate, transform, and apply critical external knowledge to improve and reconfigure existing capabilities and knowledge to produce innovation (Camison et al., 2009; Rafique et al., 2018; Jasimuddin & Naqshbandi, 2019). This capability is known as the concept of absorptive capacity (Cohen & Levinthal, 1990; Zahra & George, 2002; Zou et al., 2018; Jasimuddin & Naqshbandi, 2019).

There is a relationship between knowledge sharing, absorptive capacity, and innovation capability (Cepeda-Carrion et al., 2012; Jasimuddin & Naqshbandi, 2019).

Unfortunately, to the best of researchers' knowledge, the relation between these three variables has not been implemented in minimarkets. Previous research has occurred in state-owned high-tech enterprises (Li, 2011), in knowledge-intensive industries (Liao et al., 2007), in SME (Wuryaningrat, 2013), in textile, metal,

and food sector companies (Yesil et al., 2013), and in weaving industry (Riana et al., 2019).

So, this research will fill in the empirical study of the relationship between knowledge sharing, absorptive capacity, and innovation capability in the minimarket retail business. A convenience store is a “mini” version of a supermarket, traditionally referred to as a modern grocery store. The minimarket format retail business is very competitive, especially with the presence of foreign retailers (Raharso & Tjahjawati, 2014; Heriawan, 2018; Suhaeni et al., 2020). Also, the Covid-19 pandemic has added to the uncertainty of doing business.

Innovation capability is the key to winning the competition in the retail business (Raharso, 2006, 2009; Sriboonlue et al., 2016). Also, knowledge sharing is a lever of innovation capabilities (Raharso, 2006, 2009). On the other hand, there is a relationship between absorptive capacity and innovation capability (Li, 2011; Liao et al., 2007; Wuryaningrat, 2013; Yesil et al., 2013; Riana et al., 2019).

Therefore, this research aims to fill the gaps in the previous studies. It is expected that the study will lead to a better understanding of the issue of the importance of knowledge sharing for improving absorptive capacity and innovation capabilities of SMEs.

2. Literature Review

Knowledge Sharing

The resource-based view perspective states that knowledge is the most strategic resource for companies (Conner & Prahalad, 1996; Bhatt, 2000; Zack et al., 2009). Therefore, knowledge must be managed effectively and efficiently for the company to benefit from it. The basic concept of knowledge management is: knowledge can be shared (Nonaka & Takeuchi, 1995). This happens when employees communicate information, effective work practices, insights, experiences, preferences, lessons learned, common sense, and uncommon sense (Liao et al., 2007). So, when individual and group knowledge is shared and becomes organizational knowledge, organizations begin to be able to manage these resources effectively (Van den Hoof & Van Weenen, 2004; Lin, 2007; Rosmi & Musairah, 2017).

In other words, knowledge management will occur when knowledge sharing activities occur and the transformation of knowledge into practices in the field (Hu et al., 2009; Mason & Paulen, 2003). Thus, knowledge sharing plays a substantial role in the implementation of knowledge management (Senge, 1997; Bock & Kim, 2002; Wang & Noe, 2010). Therefore, Hendriks (1999) suggests that knowledge management activities should focus on knowledge sharing. Effective knowledge sharing will generate shared intellectual capital, a resource needed by all organizations (Liao et al., 2007).

Cumming (2003) defines knowledge sharing as organizational access to owners of knowledge and other organizational knowledge. Bartol and Srivastava (2002) state knowledge sharing as sharing information, suggestions, and relevant expertise, which is carried out by individuals in an organization with other individuals. Senge (1997) states that knowledge sharing is the exchange of knowledge between individuals through social interaction. Meanwhile, Van den Hooff and de Ridder (2004: 118) define knowledge sharing as a process where individuals make mutually beneficial exchanges of their knowledge and together build new knowledge.

Absorptive Capacity (AC)

In contemporary management, especially business strategy, AC is a “powerful” concept (Jasimuddin et al., 2015). The AC concept was introduced by Cohen and Levinthal (1990). This terminology refers to the acquisition of new knowledge and utilization of that knowledge to increase the excellence of an organization (Lane et al., 2006). With a note, this crucial knowledge usually exists outside the organization (Grandinetti, 2016). Cohen and Levinthal (1990: 128) define AC as the ability of an organization to recognize the value of new information or knowledge, assimilate new knowledge, and apply this new knowledge to commercial needs. Meanwhile, Zahra and George (2002) defined AC as a set of routine and organizational processes that are used to acquire, assimilate, transform, and exploit knowledge from the environment. Another expert, Sun and Anderson (2010) defined AC as the ability of an organization to learn and act beyond or beyond the boundaries of scientific findings and technological activities.

AC is an important connection between external knowledge, organizational performance, and the ability to innovate (Volberda et al., 2010). AC allows organizations to identify new opportunities and integrate them with existing knowledge (Ndiege et al., 2012). At the lowest level, existing knowledge can be in the form of basic skills, shared language, or being in touch with the latest science or technology in a particular field (Cohen & Levinthal, 1990; Ndiege et al., 2012).

Innovation Capability

In the VUCA business environment, innovation is an area that has received great attention from various companies (Montes et al., 2004; Liao et al., 2007; Lee & Hidayat, 2018). At present, almost all competitors in an industry have levels of competence that are not much different in management areas, such as operations, human resources, marketing, and strategy. Therefore, companies are starting to see innovation as a key differentiator to gain a competitive advantage (Harrison & Samaon, 2002; Tsai & Liao, 2014).

Yang et al. (2009) stated that innovation can be considered as an organizational capability. Capability is needed so that organizations gain

and maintain a competitive advantage (Yesil & Dereli, 2013). As a capability, innovation is an activity that utilizes resources with new capabilities to create value (Yang et al., 2009). Developing innovation capabilities is an important activity for organizations (Saunila et al., 2012) because innovation is the foundation for organizations to survive (Hurley & Hult, 1998; Hamid & Tasmin, 2013). The success or failure of an organization's operations in all industries is highly dependent on the organization's ability to produce innovation (Tidd et al., 2005).

Therefore, the capability of an organization to innovate is the key to maintaining the existence of the organization (Cavusgil et al., 2003: 10), making the organization competitive (Esterhuizen et al., 2012). Innovation capability can be defined as an organization's holistic potential to generate new and unique values (Bullinger et al., 2007). Burgelman et al. (2004) define innovation capabilities as a comprehensive characteristic of an organization that encourages and facilitates innovation strategies. Meanwhile, Wallin et al. (2011) define it as the ability to routinely achieve innovative outcomes. Innovation capability also refers to the company's capability in generating new ideas to improve products, services, processes so that they can improve organizational performance and gain a competitive advantage (Jantunen, 2005).

Relationship between Knowledge Sharing and Absorptive Capacity

Employees must have a desire to get high job ratings from the organization (Robbins, 2003). High job performance is a reflection of the individual's contribution to the achievement of organizational goals. Therefore, employees use knowledge sharing behavior to acquire and donate the knowledge they have to colleagues. Knowledge sharing activities will then be a driving factor in the creation of the ability to receive knowledge from other parties and process this knowledge with the knowledge they already have to produce new knowledge that can be used to improve their performance and organizational performance. The process of interaction with other employees will improve employee learning abilities (Liao et al., 2007), whereas "learning" is a capacity to absorb (Cohen & Levinthal, 1989). Thus, when employees are increasingly aware of the importance of knowledge sharing activities for themselves and the organization, employees will be more intensive in absorbing knowledge from external parties. This is because knowledge from their environment (internal knowledge) may not be sufficient anymore, while there are opportunities to obtain knowledge that is not available in the organization (Alavi & Leidner, 2001; Darroch & McNaughton, 2002; Pai & Chang, 2013; Rafique et al., 2018). Thus, researchers can develop the following hypothesis.

Hypothesis 1: Knowledge sharing positively affects the absorptive capacity

Relationship between Knowledge Sharing and Innovation Capability

Knowledge and intellect will grow exponentially when shared with others (Quinn et al., 1996). This happens because these activities will generate questions of feedback, amplification, and modification of existing knowledge so that they get more abundant benefits (Liao et al., 2007). The creation of new knowledge will increase an organization's ability to innovate (Liao et al., 2007; Lin, 2007; Raharso, 2009).

Innovation also refers to the process by which employees' knowledge and ideas are transformed into a form that has added value for the organization and stakeholders (Dasgupta & Gupta, 2009). The ability to mobilize and disseminate knowledge that is embedded in the employee's head, and then combine that knowledge to learn something that will lead to the creation of new products and/or process innovation can be labeled as innovation capability (Kogut & Zander, 1992). Thus, the following hypothesis can be made.

Hypothesis 2: knowledge sharing positively affects innovation capability.

Relationship between Absorptive Capacity and Innovation Capability

Cohen and Levinthal (1990) stated that the utilization of external knowledge is the main determinant of innovation capability; greater influence than technological opportunities and knowledge spillovers (Nieto & Quevedo, 2005). Zahra and George (2002) and Naqshbandi and Kamel (2017) found a significant positive relationship between AC and innovation. An empirical study by Knudsen and Roman (2004) states that AC is an important factor in predicting the innovation capability of an organization, it can even facilitate the emergence of radical innovation (Ritala & Hurmelinna-Laukkanen, 2013).

This happens because the level of absorptive capacity will determine the level of understanding of the properties of new knowledge (Tsai, 2001). The understanding of new knowledge can then be used to improve products, processes, and organizational management. Therefore, the higher the level of absorptive capacity of an organization, the greater the opportunity to gain the ability to innovate (Murovec & Prodan, 2009; Zou et al., 2018; Jasimuddin & Naqshbandi, 2019). Based on the results of this study, the researcher can develop the following hypothesis.

Hypothesis 3: absorptive capacity positively affects innovation capability.

3. Research Methods

Research data sources. This cross-sectional study is descriptive and associative. The unit of analysis is minimarket employees in the Bandung area and its surroundings. The study population was all minimarket employees in Bandung and its surroundings.

This study does not use a conservative approach in determining the sample, which is based on a certain proportion of the population. However, using the analytical tool approach used to test the relationship between variables (Hair et al., 1998; 2010). This study uses multivariate analysis, in this case, multiple regression, to examine the effect of knowledge sharing on absorptive capacity and innovation capability, as well as the effect of absorptive capacity on innovation capability.

Incidental sampling is used to get respondents, provided that the minimarket employees have worked for more than one year (Sugiyono, 2015).

300 sets of questionnaires were distributed to minimarket employees in Bandung and its surroundings for one month. 209 questionnaires were returned and could be processed. Thus, the effective response rate is 69.67%. This amount has met the requirements for multivariate research (Hair et al., 1998; 2010).

Research variable. The data collection method used a Likert scale questionnaire (Soedibjo, 2013) to obtain primary data, with a value of 1 = strongly disagree and 5 = strongly agree. The knowledge sharing variable is divided into two dimensions, knowledge collecting (consisting of four statement items) and knowledge donating (four items; Van den Hoof & de Ridder, 2004). Examples of statement items for knowledge collecting, "I seek certain information/knowledge from colleagues who understand this"; and for knowledge donating, "I think colleagues also need to know what I'm doing". The absorptive capacity variable is divided into four dimensions, namely: acquisition and assimilation (referred to as AC potential), and transformation and exploitation (referred to as AC realization) (Zahra & George, 2002). The acquisition sub variable consists of four statement items, an example of the item is "This company is trying to get the information/knowledge needed to improve performance". The assimilation sub variable consists of three statement items, for example, "This organization analyzes carefully what consumers/society want". Meanwhile, the transformation sub variable consists of three statement items, for example, "The management in this company is trying to improve existing business processes". For the exploitation sub variable, which consists of three statement items, for example, "This company has a work control mechanism by utilizing information or knowledge held". Finally, innovation capability is mono-dimensional, modified from Lin (2007), consisting of seven statement items, for example, "The organization I work for often generates new ideas".

Data analysis. Because the data collection was carried out using a questionnaire, the seriousness of the respondents in answering the questions is very important in the research. The validity of social research results is largely determined by the measuring instrument used. Therefore, two kinds of tests were made, validity

and reliability tests to test the seriousness of the respondents' answers. Factor analysis is used to determine its unidimensionality or construct validity (Aslam, 2013). Researchers used multiple regression analysis (Santoso, 2002; Hair et al., 1998) to answer research questions.

4. Results and Discussion

In addition to containing the instruments used to measure the variables to be studied, the questionnaire also took demographic data from the respondents themselves. In terms of gender, 62.2% of respondents are male, the rest are women. Based on the work period of employees, the service period is less than two years and between 2-5 years is the highest number, 52.2% and 43.1% respectively. The age of minimarket employees is dominated by young people, who are less than 30 years old, as much as 93.8%; and with a high school/vocational high school education level of 95.7%.

Tabel 1. Respondent Characteristics

	Freq.	%	
Gender	Male	130	62.2%
	Female	79	37.8%
Job experience	<2 years	109	52.2%
	2-5 years	90	43.1%
	>5 years	10	4.7%
Age	<30 years	196	93.8%
	>30 years	13	6.2%
Education level	Senior/Vocational High School	200	95.7%
	Diploma 1/2/3	9	4.3%

Source: data processing, 2021

Researchers use factor analysis to purify statement items. Under the suggestions of Hair et al. (2010), a practical significant loading factor is ± 0.50 or greater; and greater than ± 0.70 is considered a well-defined structure and is the objective of all factor analyses. Therefore, the researcher used a minimum loading factor limit of 0.50 as a value that was considered significant for each factor analyzed item.

Factor analysis was carried out on all statement items used to measure knowledge sharing, absorptive capacity, and innovation capability. Factor analysis using the principal components method, which analyzed the covariance matrix, using varimax rotation, and only displayed values greater than 0.50. The KMO of this factor analysis was 0.854; BTS = 1,722,193; df = 276; and Sig. 0.000.

The results of the confirmatory factor analysis resulted in five factors or variables, with the ability to explain at 56.608%. The statement items of knowledge sharing variables which initially consisted of eight statement items (four statement items for measuring knowledge collecting and four statement items for measuring knowledge donating) were reduced to two items

for knowledge donating and four items for knowledge collecting (fixed, not reduced). This means that this research has succeeded in producing six statement items that can be used to measure the knowledge sharing process among minimarket employees.

Furthermore, the absorptive capacity variable, which was initially hypothesized to consist of four dimensions, after analyzing the factors, turned out to be two factors or two dimensions, namely: the potential AC (consisting of five items) and realized AC (consisting of four items). Thus, the absorptive capacity dimension among minimarket employees is simpler, because it only consists of two dimensions. As a result, this study succeeded in formulating nine statement items that can be used to measure absorptive capacity in minimarkets.

The results of the last factor analysis resulted in five statement items that were perceived by minimarket employees as measuring innovation capability in the minimarket. So, two statement items are deleted because they have a loading factor lower than 0.50 so that they cannot be used to measure innovation capability.

The results of the factor analysis indicate that this study has an instrument with guaranteed construct validity because each statement item can measure or match a latent variable (Forza & Filipini, 1998); no cross-loading occurs.

Furthermore, the instrument is declared reliable if it is not affected by random error (Forza & Filippini, 1998). Reliability is generally measured using Cronbach Alpha. According to Hair et al. (2010), the Cronbach Alpha value > 0.70 is an acceptable value for internal consistency reliability.

Thus the constructs of knowledge sharing, absorptive capacity, and innovation capability used in this study have a relatively good internal consistency value, because it has a Cronbach Alpha value > 0.70; except for realized AC dimensions which are marginal. The correlation between items and totals for all variables has a value > 0.30. So, all instruments used in measuring the research variables are valid, because they have a value > 0.30 (Sekaran, 2007). In conclusion, the variables used in this study are classified as valid and reliable (Sekaran, 2007; Hair et al., 2010).

Table 2. Factor Analysis, Validity, and Reliability

No.	Item Code	Factor					Validity & Reliability						
		Potential AC	Innovation Capability	Realized AC	Knowledge Collecting	Knowledge Donating	Correlation Item-Total	Cronbach's alpha					
1	Acqui32	0.744					0.481	0.754					
2	Acqui33	0.534					0.576						
3	Assim34	0.695					0.543						
4	Assim35	0.685					0.527						
5	Assim36	0.513					0.485						
6	InCap49		0.735				0.572	0.779					
7	InCap46		0.681				0.585						
8	InCap48		0.626				0.488						
9	InCap43		0.616				0.586						
10	InCap45		0.544				0.537						
11	Transf37		0.758				0.479		0.694				
12	Transf38		0.665				0.564						
13	Exploi41		0.539				0.433						
14	Exploi42		0.535				0.443						
14	Collect23											0.540	0.700
15	Collect24	0.751		0.590									
16	Collect25	0.588		0.429									
17	Collect22	0.577		0.399									
18	Donat29							0.903				0.638	0.777
19	Donat28							0.833					
% Variance		12.373%		12.889%	10.801%	9.297%		11.247%					

Total Variance Explained: 56.608%

Acqui=Acquisition; Assim=Assimilation; InCap=Innovation Capability; Transf=Transformation; Exploi=Exploitation; Collec=Knowledge Collecting; Donat=Knowledge Donating
Source: data processing, 2021

The results of the descriptive analysis show that each variable is at a "high" level (in the range 3.41-4.20). Knowledge sharing has the lowest score (3.86) while absorptive capacity has the highest average value (4.00). Judging from the standard deviation, all variables have a standard

deviation that is within a tolerable range, namely: a maximum of 20% of the average value (Santoso, 2002). Furthermore, because the correlation between variables is significant, this indicates that this study meets the criteria for criterion-related validity or predictive validity;

because all the dimensions of the independent variables have a significant relationship with the dependent variable (Das et al., 2008).

Table 3. Mean and Correlations

Var.	Mean	S.D.	1	2	3
1 KS	3.86	0.60	1	0.298**	0.329**
2 AC	4.00	0.44		1	0.610**
3 IC	3.90	0.58			1

** The correlation is significant at the 0.01 level (2-tailed); N=209; KS=Knowledge Sharing; AC=Absorptive Capacity; IC=Innovation Capability; **Significant at $p < 0.05$.
Source: data processing, 2021

This study succeeded in proving that there was a positive and significant influence of the knowledge sharing construct on absorptive capacity and innovation capability, as well as absorptive capacity on innovation capability. In the form of path analysis, the results are as follows.

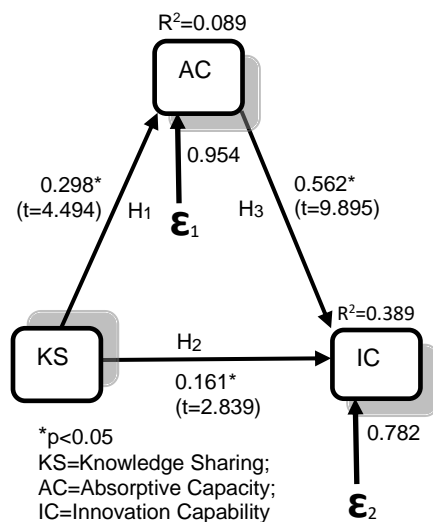


Figure 1. Path Coefficient between Variables

Discussion

This study shows that knowledge sharing has a positive and significant effect on absorptive capacity (with path coefficient = 0.298) and can explain 8.9% of the variation in absorptive capacity. This indicates that the knowledge sharing of minimarket employees plays a role in building absorptive capacity, in line with the hypothesis developed by this study. So, knowledge sharing is a prerequisite for the absorptive capacity process. Sharing knowledge among minimarket employees is a trigger for absorptive capacity (Rafique et al., 2018). This can happen because knowledge collecting and donating activities produce new knowledge that can be used by minimarket employees to solve problems in the workplace. The outcome, this activity requires interaction with other employees so that employees realize the importance of "learning". Learn actively, using various sources to solve problems. This means that the capacity to utilize knowledge (from internal and external to the organization) will increase (Liao et al., 2007; Cohen & Levinthal, 1989).

Besides, the existence of a significant relationship between knowledge sharing and absorptive capacity is an important finding. This is be-

cause previous studies have considered absorptive capacity as an exogenous variable (Liao et al., 2007). This study succeeded in proving that knowledge sharing activities can develop and increase absorptive capacity.

Next, the knowledge sharing variable also has a positive and significant effect on innovation capability in the minimarket (with path coefficient = 0.161), and simultaneously with the absorptive capacity it can explain 38.9% of the variation in the innovation capability variable. This can occur because knowledge sharing activities, in tacit or implicit form, will increase the individual's capacity to define a situation or problem. After that, employees will apply the knowledge they have to solve problems (Nonaka et al., 2006). So, knowledge sharing among minimarket employees can stimulate individuals to think critically and be more creative and generate new knowledge (Aulawi et al., 2009). This knowledge can then be used to generate new ideas and improve the company's products; or in other words, innovation performance is also getting better (Jantunen, 2005).

However, the direct effect of knowledge sharing on innovation capability (amounting to 0.161) compared to the indirect effect of knowledge sharing on innovation capability (through absorptive capacity, amounting to $0.562 * 0.298 = 0.167476$), turned out to have a lower value. This indicates that the concept of absorptive capacity is a good mediator between knowledge sharing and innovation capability. Baron and Kenny (1986) argue that the overall effect of the model without a mediator will be lower (in this case: $0.161 < 0.167476$) or become insignificant when compared to a model that integrates the moderator variables. Theoretically, this is by the opinion of Liao and Wu (2010) and Leal-Rodriguez et al. (2014) which states that absorptive capacity is a mediator between knowledge acquisition and innovation capabilities. Jasimuddin and Naqshbandi's (2019) empirical study in French SMEs also states that absorptive capacity acts as a mediator between knowledge infrastructure capability and open innovation.

Therefore, in a highly competitive retail business climate, management not only needs to develop a culture of knowledge sharing among employees but also needs to develop the ability to absorb existing knowledge outside the organization. The combination of internal knowledge and external knowledge is expected to produce new knowledge that can improve individual performance and organizational performance, especially in generating the ability to innovate.

5. Conclusion

Following the empirical facts obtained from the research results, it can be concluded that knowledge sharing has a positive and significant effect on absorptive capacity. Second, knowledge sharing has a positive and significant effect on innovation capability. Next, absorptive capacity has a positive and significant effect on innovation capability. Finally, absorptive capacity is a good

mediator between knowledge sharing and innovation capability.

Since the shopping experience is the "mainstream" of the minimarket business, the theoretical implication is that innovation capabilities should emphasize the importance of service innovation. In addition, because the ability to innovate is a necessity in the knowledge-based economy age, all variables that can leverage innovation also need to be identified. This includes the antecedents of knowledge-sharing behavior and absorptive capacity. That is, it is necessary to verify all antecedents knowledge sharing and absorptive capacity, to produce a more complete framework.

The managerial implication is that the existing knowledge-sharing culture needs to be synergized with the ability to absorb external knowledge to increase innovation and organizational performance (Volberda et al., 2010). The fusion of internal knowledge (the result of knowledge sharing) with external knowledge will be a "tool" to identify new opportunities (Ndiege et al., 2012). Therefore, the workplace needs to be designed to encourage employees to work together, solve tactical and strategic problems by empowering internal and external knowledge. Although structurally each minimarket does not have a research and development structure, the functions of that structure can be adopted to strengthen absorption capacity. So, management should facilitate employees so that the culture and capabilities are sustainable.

References

- Alavi, M., and Leidner, D.E. (2001). Review: knowledge management and knowledge management systems: conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107-136.
- Aria, P. (2020). Pandemi mengubah lanskap gerai retail, siapa yang diuntungkan? Available at: <https://katadata.co.id/pingitaria/indepth/5ea517858b8a1/pandemi-mengubah-lanskap-gerai-retail-siapa-yang-diuntungkan> (Accessed 31 Dec 2020).
- Aslam, H. (2013). Social capital and knowledge sharing as determinants of academic performance. *Proceeding of 3rd International Conference on Business Management*, School of Business and Economics, Lahore, Pakistan.
- Aulawi, H., Sudirman, I., Suryadi, K., and Govindaraju, R. (2009). Knowledge sharing behavior, antecedents, and their impact on the individual innovation capability. *Journal of Applied Sciences Research*, 5(12), 2238-2246.
- Baron, R.M. and Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychology research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bartol, K.M. and Srivastava, A.S. (2002). Encouraging knowledge sharing: the role of organizational reward systems. *Information Resources Management Journal*, 15(2), 14-21.
- Bennis, W. and Nanus, B. (1985). *Leaders: The strategies for taking charge*. New York: Harper & Row.
- Bhatt, G. (2000). Information dynamics, learning, and knowledge creation in organizations. *The Learning Organization*, 7(2), 89-98.
- Bock, G. and Kim, Y. (2002). Determinants of the individual knowledge sharing behavior: the theory of reasoned action perspective. *Paper presented at the Proceeding of the Pacific-Asia Conference on Information System (PACIS)*, Meiji University, Tokyo.
- Bullinger, H.-J., Bannert, M., and Brunswicker, S. (2007). Managing innovation capability in SMEs. *Tech Monitor, Special Feature: Innovation & KM by SMEs*, May-June, 17-27.
- Burgelman, R., Maidique, M., and Wheelwright, S. (2004). *Strategic management of technology and innovation*. Times Mirror Higher Education Group.
- Camison, C., Julian, B.F., and Denia, A.P. (2009). Can virtual networks encourage knowledge absorptive capacity? In Camison, C.; Palacios, D.; Garrigos, F.; Devece, C. (Eds.) 2009. *Connectivity and knowledge management in virtual organizations: networking and developing interactive communication*, 39-60. Hershey: IGI Publishing.
- Cavusgil, S.T., Calantone, R.J., and Zhao, Y. (2003). Tacit knowledge transfer and firm innovation capability. *Journal of Business & Industrial Marketing*, 18(1), 6-21.
- Cepeda-Carrion, G., Cegarra-Navarro, J.G., and Jimenez-Jimenez, D. (2012). The effects of absorptive capacity on innovativeness: context and information systems capability as catalysts. *British Journal of Management*, 23(1), 110-129.
- Chen, C.J. and Huang, J.W. (2009). Strategic human resource practices and innovation performance-the mediating role of knowledge management capacity. *Journal of Business Research*, 64, 104-114.
- Cohen, W.M. and Levinthal, D.A. (1989). Innovation and learning: the two faces of R&D. *Economic Journal*, 99(397), 569-596.
- Cohen, W.M. and Levinthal, D.A. (1990). Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 39, 128-152.
- Conner, K.R. and Prahalad, C.K. (1996). A resource-based theory of the firm: knowledge versus opportunism. *Organization Science*, 7, 477-501.
- Cumming, J. (2003). *Knowledge sharing: a literature review*. Washington D.C.: World Bank.
- Darroch, J. and McNaughton, R. (2002). Examining the link between knowledge management practices and types of innovation. *Journal of Intellectual Capital*, 3(3), 210-222.

- Das, A., Paul, H., and Swierczek, F.W. (2008). Developing and validating total quality management (TQM) constructs in the context of Thailand's manufacturing industry. *Benchmarking: an International Journal*, 15(1), 52-72.
- Dasgupta, M. and Gupta, R.K. (2009). Innovation in organizations: a review of the role of organizational learning and knowledge management. *Global Business Review*, 10(2), 203-224.
- Esterhuizen, D., Schutte, C., and du Toit, A. (2012). A knowledge management framework to grow innovation capability maturity. *SA Journal of Information Management*, 14(1), 1-10.
- Forza, C. and Filipini, R. (1998). TQM impact on quality conformance and customer satisfaction: a causal model. *International Journal of Production Economics*, 55(1), 1-20.
- Grandinetti, R. (2016). Absorptive capacity and knowledge management in small and medium enterprises. *Knowledge Management Research & Practice*, 14, 159-168.
- Grant, R.M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal* (1986-1998), 17 (Winter Special Issue), 109-122.
- Hair, Jr., J.F., Anderson, R.E., Tatham, R.L., and Black, W.C. (1998). *Multivariate data analysis with reading*. New Jersey: Prentice-Hall.
- Hair, Jr., J.F., Black, W.C., Babin, B.J., and Anderson, R.E. (2010). *Multivariate Data Analysis: a global perspective*. New Jersey: Pearson.
- Hamid, N.A.A. and Tasmin, R. (2013). The relationship of business innovation capabilities and technology innovation capabilities on SME organization performance. *Proceedings The 2nd International Conference on Global Optimization and Its Applications 2013*, Avillion Legacy Melaka Hotel, Malaysia, 28-29 August.
- Harrison, N. and Samaon, D. (2002). *Technology management: text and international cases*. New York: McGraw-Hill.
- Hendriks, P. (1999). Why share knowledge? The influence of ICT on motivation for knowledge sharing. *Knowledge and Process Management*, 6, 91-100.
- Heriawan, T. (2018). Analisa kreatifitas pelaksanaan strategi pemasaran pada usaha retail business (bisnis eceran) untuk usaha mini market konvensional di Indonesia. *Jurnal Ekonomi*, 9(1), 58-69.
- Hu, M-L.M., Horng, J-S., and Sun, Y-H.C. (2009). Hospitality teams: knowledge sharing and service innovation performance. *Tourism Management*, 30, 41-50.
- Hurley, R.F. and Hult, G.T.M. (1998). Innovation, market orientation, and organizational learning: an integration and empirical examination. *Journal of Marketing*, 62(3), 42-54.
- Intan-Soraya, R. and Chew, K-W. (2013). Human resource management for innovative capability development in Malaysia's New Economic Model. In P. Ordonez de Pablos, R. Tennyson, & J. Zhao (Eds.) 2013. *Intellectual capital strategy management for knowledge-based organizations*, 142-155. Hershey, PA.: IGI Global.
- Jantunen, A. (2005). Knowledge-processing capabilities and innovative performance: an empirical study. *European Journal of Innovation Management*, 8(3), 336-349.
- Jasimuddin, S.M. and Naqshbandi, M.M. (2019). Knowledge infrastructure capability, absorptive capacity, and inbound open innovation: evidence from SMEs in France. *Production Planning & Control*, 30(10-12), 893-906.
- Jasimuddin, S.M., Li, J., and Perdakis, N. (2015). Knowledge recipients, acquisition mechanism and knowledge transfer at Japanese subsidiaries: an empirical study in China. *Thunderbird International Business Review*, 57(6), 463-479.
- Judith, M.P. (2021). Ujian panjang sektor riil. *Kompas*, 09 Januari, 10.
- Knudsen, H.K. and Roman, P.M. (2004). Modeling the use of innovation in private treatment organizations: the role of absorptive capacity. *Journal of Substance Abuse Treatment*, 24, 353-361.
- Kogut, B. and Zander, U. (1992). Knowledge of the firm, combinative capability, and the replication of technology. *Organization Science*, 3, 383-397.
- Kuncoro, A. (2020). Catatan tahun turbulens 2020. *Kompas*, 28 Desember, 6.
- Lane, P. J., Koka, B., and Pathak, S. (2006). The reification of absorptive capacity: a critical review and rejuvenation of the construct. *Academy of Management Review*, 31(4), 833-863.
- Leal-Rodriguez, A.L., Roldan, J.L., Ariza-Montes, J.A., and Leal-Millan, A. (2014). From potential absorptive capacity to innovation outcomes in project teams: the conditional mediating role of the realized absorptive capacity in a relational learning context. *International Journal of Project Management*, 32(6), 894-907.
- Lee, C-W. and Hidayat, N. (2018). The influence of knowledge sharing and absorptive capacity on service innovation performance of Islamic banking in North Borneo Indonesia. *Advances in Management & Applied Economics*, 8(4), 17-28.
- Li, X. (2011). Sources of external technology, absorptive capacity, and innovation capability in Chinese state-owned high-tech enterprises. *World Development*, 39(7), 1240-1248.
- Liao S.H. and Wu, C.C. (2010). Relationship between knowledge acquisition, absorptive capacity, and innovation capability: an empirical study on Taiwan's financial and

- manufacturing industries. *Journal of Information Science*, 36(1), 19-35.
- Liao, S-H., Fei, W-C., and Chen, C-C. (2007). Knowledge sharing, absorptive capacity, and innovation capability: an empirical study of Taiwan's knowledge-intensive industries. *Journal of Information Science*, 33(3), 340-359. DOI: 10.1177/0165551506070739
- Lin, H-F. (2007). Knowledge sharing and firm innovation capability: an empirical study. *International Journal of Manpower*, 28(3/4), 315-332.
- Mason, D. and Pauleen. D.J. (2003). Perception of knowledge management: a qualitative analysis. *Journal of Knowledge Management*, 7(4), 38-48.
- Montes, F., Moreno, A., and Fernandez, L. (2004). Assessing the organizational climate and contractual relationship for perceptions of support for innovation. *International Journal of Manpower*, 25(2), 67-180.
- Murovec, N. and Prodan, I. (2009). Absorptive capacity, its determinants, and influence on innovation output: cross-cultural validation of the structural model. *Technovation*, 29(12), 859-872.
- Nangia, M. and Mohsin, F. (2020). Identifying VUCA factors in a pandemic era – a framework focused on Indian IT industry. *Journal of Critical Reviews*, 7(7), 931-936.
- Naqshbandi, M.M. and Kamel, Y. (2017). Intervening role of realized absorptive capacity in organizational culture-open innovation relationship: evidence from an emerging market. *Journal of General Management*, 42(3), 5-20.
- Ndiege, J.R., Herselman, M.E., and Flowerday, S.V. (2012). Absorptive capacity: relevancy for large and small enterprises. *SA Journal of Information Management*, 14 (1, Art. #520), 1-9.
- Nieto, M. and Quevedo, P. (2005). Absorptive capacity, technological opportunity, knowledge spillovers, and innovative effort. *Technovation*, 25, 1141-1157.
- Nonaka, I. and Takeuchi, H. (1995). *The knowledge-creating company*. New York: Oxford University Press.
- Nonaka, I., Von Krogh, G., and Voelpel, S. (2006). Organizational knowledge creation theory: evolutionary paths and future advances. *Organization Studies*, 27(8), 1179-1208.
- Oanh, N.T. (2019). The relationship between innovation capability, innovation type, and innovation performance in FDI Enterprises in Vietnam. *International Journal of Economics and Finance*, 11(8), 28-34.
- Pai, F-Y. and Chang, H-F. (2013). The effects of knowledge sharing and absorption on organizational innovation performance – a dynamic capabilities perspective. *Interdisciplinary Journal of Information, Knowledge, and Management*, 8, 83-97.
- Pryanka, A. (2019). Aprindo: pertumbuhan ritel masih terhambat hingga tahun 2020. Available at <https://republika.co.id/berita/q0umsv383/aprindo-pertumbuhan-ritel-masih-terhambat-hingga-tahun-2020> (Accessed 31 December 2020).
- Quinn, J. B., Anderson, P., and Finkelstein, S. (1996). Managing professional intellect: making the most of the best. *Harvard Business Review*, 74, 71-80.
- Rafique, M., Hameed, S., and Agha, M.H. (2018). Impact of knowledge sharing, learning adaptability, and organizational commitment on absorptive capacity in pharmaceutical firms based in Pakistan. *Journal of Knowledge Management*, 22(1), 44-56.
- Raharso, S. (2006). Inovasi di industri eceran: mampukah berperan sebagai mediator antara orientasi pasar dan kinerja organisasi. *Jurnal Bisnis Strategi*, 15(1), 70-83.
- Raharso, S. (2009). Orientasi pasar, inovasi, dan kinerja organisasi ritel. *Jurnal Manajemen dan Usahawan Indonesia*, 38(3), 20-29.
- Raharso, S. and Tjahjowati, S.S. (2014). Relasi proses knowledge sharing dengan kapabilitas inovasi. *Jurnal Manajemen dan Usahawan Indonesia*, 43(3), 243-259.
- Riana, I.G., Rihayana, I.G., and Ratih, I.A.D.K. (2019). Creating innovation through knowledge sharing and absorptive capacity. *Polish Journal of Management Studies*, 19 (1), 338-352.
- Ritala, P. and Hurmelinna-Laukkanen, P. (2013). Incremental and radical innovation in coopetition – the role of absorptive capacity and appropriability. *Journal of Product Innovation Management*, 30(1), 154-169.
- Robbins, S.P. (2003). *Organization Behavior*. Upper Saddle River, NJ: Prentice-Hall.
- Rosmi, S.S. and Musairah, S.K. (2017). Knowledge sharing and innovation capability. *Jurnal Intelek*, 12(1), 42-49.
- Santoso, S. (2002). *Buku Latihan SPSS Statistik Multivariat*. Jakarta: Elex Media Komputindo.
- Saunila, M., Ukko, J., and Rantanen, H. (2012). Innovation capability and its measurement in Finnish SMEs. In H. Melkas & V. Harmaakorpi (eds.). 2012. *Practice-based innovation: insight, applications, and policy implications*. Berlin Heidelberg: Springer-Verlag.
- Sekaran, U. (2007). *Metode Penelitian untuk Bisnis*. Jilid 1 & 2. Diterjemahkan oleh Kwan Men Yon. Jakarta: Salemba Empat.
- Senge, P.M. (1997). The fifth discipline. *Measuring Business Excellence*, 1(3), 46-51.
- Soedibjo, B.S. (2013). *Pengantar Metode Penelitian*. Bandung: Unas Pasim.
- Sriboonlue, P., Ussahawanitchakit, P., and Raksong, S. (2016). Strategic innovation capability and firm sustainability: Evidence from auto parts businesses in Thailand. *Journal of Business and Retail Management Research*, 10(2), 11-29.
- Sugiyono. (2015). *Metode Penelitian Kombinasi (Mix Methods)*. Bandung: Alfabeta.
- Suhaeni1, T., Raharso, S., and Putri, I.S.S. (2020). Musik dalam-toko dan perilaku

- pembeli: kajian empiris di minimarket. *Jurnal Inovasi Bisnis*, 8, 47-51.
- Sun, P.Y. and Anderson, M.H. (2010). An examination of the relationship between absorptive capacity and organizational learning, and proposed integration. *International Journal of Management Reviews*, 12(2), 130-150.
- Tidd, J., Bessant, J., and Pavitt, K. (2005). *Managing innovation: integrating technological, market and organizational change*. West Sussex, England: John Wiley & Sons.
- Tsai, C.T. and Liao, W.F. (2014). A framework for open innovation assessment. *International Journal of Innovation Management*, 18(5), 1450040.
- Tsai, W. (2001). Knowledge transfer in intraorganizational networks: effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44(5), 996-1004.
- Van den Hoof, B. and Van Weenen, F.de L. (2004). Committed to share: commitment and CMC use as antecedents of knowledge sharing. *Knowledge and Process Management*, 11, 13-24.
- Van den Hooff, B. and de Ridder, Jan A. (2004). Knowledge sharing in context: the influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8(6), 117-130.
- Velmurugan, M., Kogilah, N., and Devinaga, R. (2010). Knowledge sharing in virtual teams in Malaysia: its benefits and barriers. *Journal of Information & Knowledge Management*, 9(2), 45-159.
- Volberda, H., Foss, N., and Lyles, M.A. (2010). Absorbing the concept of absorbing capacity: how to realize its potential in the organizational field. *Organizations Science*, 21(4), 931-951.
- Wallin, J., Larsson, A., Isaksson, O., and Larsson, T. (2011). Measuring innovation capability-assessing collaborative performance in product-service system innovation. *3rd CIRP International Conference on Industrial Product Service Systems*, Braunschweig.
- Wang, S. and Noe, R.A. (2010). Knowledge sharing: a review and directions for future research. *Human Resource Management Review*, 20, 115-131.
- Wuryaningrat, N.F. (2013). Knowledge Sharing, Absorptive Capacity and Innovation Capabilities: An Empirical Study on Small and Medium Enterprises in North Sulawesi, Indonesia. *Gadjah Mada International Journal of Business*, 15(1), 61 – 78.
- Yang, C.C., Marlow, P.B., and Lu, C.S. (2009). Assessing resources, logistics service capabilities, innovation capabilities, and the performance of container shipping service in Taiwan. *International Journal of Production Economics*, 122(1), 4-20.
- Yesil, S. and Dereli, S.F. (2013). An empirical investigation of the organizational justice, knowledge sharing, and innovation capability. *Procedia-Social and Behavioral Sciences* 75, 199-208; 2nd International Conference on Leadership, Technology, and Innovation Management.
- Yesil, S., Koska, A., and Buyukbese, T. (2013). Knowledge sharing process, innovation capability and innovation performance: an empirical study. *Procedia-Social and Behavioral Sciences*, 75, 217-225.
- Zack, M.H., Mackeen, J., and Singh, S. (2009). Knowledge management and organizational performance: an exploratory analysis. *Journal of Knowledge Management*, 13, 392-409.
- Zahra, S. and George, G. (2002). Absorptive capacity: a review, reconceptualization, and extension. *Academy of Management Review*, 27(2), 185-203.
- Žemaitis, E. (2014). Knowledge management in open innovation paradigm context: high tech sector perspective. *Procedia – Social and Behavioral Sciences* 110, 164-173.
- Zou, T., Ertug, G., and George, G. (2018). The capacity to innovate: a meta-analysis of absorptive capacity. *Innovation: Organization & Management*, 20(2), 87-121.