

Types of Absorptive Capacity as Antecedents of Innovation Capability: Mediating Effect of Knowledge Management

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ABSTRACT

Objectives. The idea of absorptive capacity has become one of the most crucial ideas in the field of strategic management since it is frequently seen as a crucial component in developing innovative potential. Observations have been made regarding whether knowledge management must be present. As a result, the function of knowledge management as a mediating variable to the links between potential and realized absorptive capacity, and ultimately their effects on innovation capability, is discussed in this paper.

Methodology: 180 Business Administration graduates with relevant employment experience served as our source for the data. We then observed their potential and discovered their capacity for invention, knowledge management, and absorption using SEM-PLS with SmartPLS software which was utilized as an aid in our analysis of the outcomes.

Finding: Our results show that there is no significant association between either type of absorptive capacity or innovative capability. Innovative capability does not greatly lag behind absorptive capacity, whether potential or realized. However, when knowledge management is incorporated as a mediating element, realized absorptive capacity has a positive and significant indirect impact on innovative capability.

Conclusion: Knowledge management has a strong mediating effect on realized absorptive capacity and has a positive as well as significant indirect impact on innovative capability.

Keywords: business administration; knowledge management; absorptive capacity; innovation capability; strategic management

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INTRODUCTION

Knowledge is an intangible resource that is used in conjunction with other organizational resources (such as finance and physical resources) to create capabilities. Knowledge is the understanding, consciousness, or cognition that an individual gains via studying, observing, experiencing, and researching the outside world (Zhou et al., 2021). Knowledge management is defined as the processes and activities that assist organizations in producing, acquiring, discovering, organizing, using, and disseminating knowledge among their workforce, as well as transferring information and experience to use in their management of activities like decision-making, work procedures, and strategic planning (Hesniati et al., 2019).

Knowledge management entails transforming relevant data and expertise that are a part of organizational memory and their natural state in an unstructured organization into organized knowledge to achieve organizational goals (Oufkir & Kassou, 2019). Knowledge creation, utilization, codification, transfer, and sharing are just a few of the many elements of explicit and tacit knowledge that have been researched (Rengkung et al., 2019). Explicit knowledge often applies to documents connected to the job, organizational policies, and work procedures, whereas tacit knowledge relates to more ethereal skills like personal experience (Song et al., 2018).

For managers and decision-makers in both the public and private sectors, knowledge management has emerged as a strategic priority (Singh et al., 2021). It is essential to ensure that organizational goals and company objectives are in harmony while also fostering growth and new competitive advantages (Al-Kurdi et al., 2018). In some classic literature, the knowledge management processes are divided into the following four aspects: knowledge exchange, knowledge development, information capture and storage, and knowledge application and utilization (Barley et al., 2018). The process of creating and sharing new knowledge to be incorporated into systems, services, and products is known as knowledge creation (Zahra & George, 2002). It emphasizes creating new knowledge rather than using easily accessible information (Song et al., 2018).

Problem-solving abilities, creativity, and decision-making among individuals, teams, and even organizations are essential within organizations (Silvianita & Pradana, 2022). Therefore, collective knowledge, skills, and experience of staff members are essential to knowledge management effectiveness (Hasbi et al., 2021, Risianto et al., 2018). Peer knowledge sharing has also been demonstrated to improve organizational performance and innovation performance (X. Lu et al., 2019). Knowledge sharing is the interchange of information between people, groups, companies, and teams (Su et al., 2021).

In order to equip businesses with enough knowledge capital to accomplish business model innovation, knowledge sharing aims to increase the usage value of information and the scope of its uses (Pradana & Silvianita, 2022). Knowledge sharing refers to a range of workplace practices where employees contribute or transfer particular knowledge or professional abilities to others in a selected manner (Song et al., 2018). Therefore, we believe that this research is urgent in adding more spectrum to the existing literatures about absorptive capacity and innovation in general.

LITERATURE REVIEW

Innovation Capability as Antecedent

As a means of enhancing operational efficiency and maintaining a competitive edge, successful firms continuously invest in learning and obtaining new information (Pradana et al., 2019). The organization's capacity to recognize, absorb, adapt, and make use of outside information, research, and practice (Ferreira et al., 2020). In other words, absorptive capacity measures how well an organization can absorb and apply knowledge that is external to it, such as scientific, technological, or other knowledges (Gunjal, 2019). Absorptive capacity shows how well a company can adapt.

Absorption capacity refers to an organization's or business's capability to obtain, utilize, and integrate information developed elsewhere through a process involving large investments, particularly of an intangible kind. The mix of internal and external elements that motivate firms to implement their innovation strategy and serve as the basis for competitiveness is known as innovation capability (Ferreira et al., 2020). The ability of organizations to innovate depends on several different elements. Out of this development context, innovation clusters have been created. The formation of innovation clusters in a particular geographic area or industry is predicated on the efficient aggregation of knowledge resources (Silvianita & Pradana, 2022).

Knowledge management is sometimes seen as the interaction between a sender and a receiver that involves spreading information with others to gain new knowledge (Swanson et al., 2020). Knowledge donation and knowledge gathering are the two halves of the behavior of exchanging knowledge. Sharing one's distinctive intellectual model with others is a practice known as knowledge giving (Demir et al., 2021). The act of obtaining knowledge involves doing so both internally and externally to the company (El-Helaly et al., 2015). The deliberate pursuit of knowledge is an endeavor to close knowledge gaps (Xiaozhong Liu, 2013). Based on these discussions, we formulated two hypotheses:

- Hypothesis 1: There is a positive and significant impact of potential absorptive capacity on innovation capability.
- Hypothesis 2: There is a positive and significant impact of realized absorptive capacity on innovation capability.

Absorptive Capacity's Effects

The definition of "absorptive capacity" represents an organization's or a company's ability to recognize and evaluate new information from the outside before incorporating and putting it to use (Chichkanov, 2021). Many researchers investigated the application of absorptive capacity (Howell, 2020). Human behavior, corporate success and innovation, proximity in space and time, and knowledge requirements (Xueyuan Liu et al., 2018; Presutti et al., 2019; Rafique et al., 2019; Schweisfurth & Raasch, 2018). The term "absorptive capacity" refers to a company's capacity to obtain, absorb, transform, and use new external knowledge (Zahra & George, 2002). The concepts of learning processes, skill development, and knowledge transfer are all related to absorptive capacity. These procedures increase a company's capacity for discovering outside

knowledge sources, adjusting to environmental changes, stepping up innovation, and meeting client demands. Companies with low levels of absorptive capacity struggle to incorporate and market new knowledge, which reduces the effectiveness of innovation (Foss et al., 2011; Onyeiwu, 2015). Absorptive competency is a methodical way for various company parts to cooperate to obtain from additional forces operating outside of its legal restrictions. Because of this, learning comes from prior information which serves as a prerequisite for the effective incorporation of novel knowledge into the company.

Knowledge acquisition, knowledge adaption, and knowledge renovation are the three sub-elements of absorptive capability, which underpins creative problem-solving, brainstorming, and knowledge renovation (Teece, 2007). First, absorptive capability helps the business identify more accessible knowledge flows. In other words, the firm's capacity for information absorption grows in direct proportion to the volume of outside knowledge it takes in (Silvianita & Pradana, 2022). Second, the firm's capacity for information absorption influences the benefit it derives from a specific volume of identified external knowledge flows. The ability to detect, appraise, or potential absorptive capacity is what other researchers refer to as the first effect. The ability to employ, exploit, or realized absorptive capacity is what is often referred to as the second effect (Schweisfurth & Raasch, 2018). Therefore, we formulated three more hypotheses:

- Hypothesis 3: There is a positive and significant impact of potential absorptive capacity on knowledge management.
- Hypothesis 4: There is a positive and significant impact of realized absorptive capacity on knowledge management.
- Hypothesis 5: There is a positive and significant impact of knowledge management on innovation capability.

The Mediating Role of Knowledge Management

Businesses have transitioned from the era of natural resources to the era of knowledge (Pradana et al., 2019). An era of knowledge focusing on research, development, skills, and education is replacing the period of natural resources (Khan et al., 2019). One of the most significant and highly prized assets and commodities has traditionally been regarded as knowledge (Gunjal, 2019). The procedures and infrastructures businesses use to gather, produce, and distribute knowledge for developing strategy and making strategic decisions are referred to as strategic knowledge management. Knowledge creation, storage, transmission, and application are some of the processes included in knowledge management which is the identification and exploitation of an organization's knowledge resources (Pradana & Silvianita, 2022). A company's knowledge is its lifeblood. In today's dynamic and competitive environment, knowledge is increasingly understood to be essential to an enterprise's existence (Hasbi et al., 2021). This finding shows that controlling knowledge is just as important to a business as controlling other resources.

For success and competitive advantage, organizations heavily rely on knowledge which has developed into a resource and a significant success factor for the organizations (Hesniati et al., 2021). Today, knowledge is more important since properly managed knowledge may contribute

to an organization's success by yielding several positive outcomes (Gilang et al., 2019; Kawiana et al., 2020).

Literature reveals that knowledge is the main requirement for long-term success and innovation (Yi, 2009). The advantages of having a knowledge-intensive organization don't end there; effective and intelligent use of the information gleaned from the amount of information that already exists within an organization also improves productivity, performance, and innovation capabilities (Fainshmidt et al. 2016). An organization should focus on discovering and preserving its vital information because knowledge is the source of its competitive advantage (Massingham, 2008). Knowledge is conveyed through numerous channels and is stored in various ways. Knowledge assets include people (individuals, teams), systems (strategies, rules, processes, procedures), and things (technology) that support the sharing of knowledge (Hassan et al., 2019). Widely used as a tool for maintaining a competitive edge is knowledge management (Gupta & Chopra, 2018).

The transfer of knowledge between individuals, groups, teams, departments, and organizations is referred to as knowledge sharing (Silvianita & Pradana, 2022). Effective information sharing depends on people's willingness to share their knowledge rather than hoard it (Teofilus et al., 2020). This kind of motivation is more likely to resemble prosocial conduct which is difficult to attain through coercion or rewards (Babič et al., 2019). We then formulated the last two hypotheses:

- Hypothesis 6: There is a positive and significant impact of potential absorptive capacity on innovation capability through knowledge management as a mediating factor.
- Hypothesis 7: There is a positive and significant impact of realized absorptive capacity on innovation capability through knowledge management as a mediating factor.

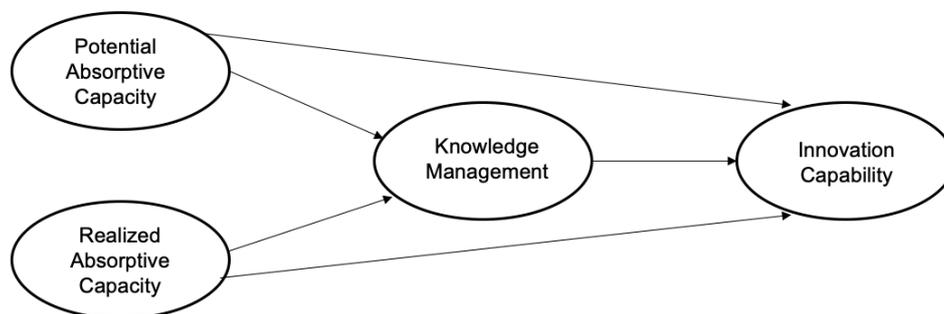


Figure 1. Research Framework

A synergic path model consisting of seven hypotheses can be developed using the literature review we previously described as utilized in Silvianita & Pradana (2022). Figure 1 is how we visually represent the study framework.

METHODOLOGY

This study uses a causal and quantitative approach. Data was collected through a questionnaire filled out by respondents, in this case, we used the advantage of an online questionnaire containing 25 indicators deriving from four (4) research constructs. Due to the presence of two latent variables in this investigation and the mediating role played by formative indicators, we decided to use the SEM-PLS approach (Hair, et al., 2016; 2020). The questionnaires employ a Likert scale, where a score of 5 denotes "strongly agree," a score of 4 "agree," a score of 3 "somewhat agree," a score of 2 "disagree," and a score of 1 denotes "strongly disagree" (Sugiyono, 2017).

This study was conducted in Indonesia with the help of early-career professionals who are also graduates of Telkom University's Department of Business Administration. Although the researchers have made an effort to get more than 200 respondents, the final sample size was 180 respondents. Data was gathered through alumni information by accessing the university database and obtaining department contacts.

For the measurements, this research used questionnaires with realized and potential absorptive capacity, and innovation capability as the main variables, as well as knowledge management as mediating variables. To measure knowledge management, this research used measurements from Demir et al. (2021) to measure absorptive capacity. This research also used the measurements from Pradana et al. (2019), and Levinthal (2020) for the innovation capability.

In this study, exploratory analysis is used. PLS is used to estimate the structural model and evaluate the measurement model (reliability and validity of the constructs). A tool for statistical analysis is partial least square-structure equation modeling (PLS-SEM). One objective of using PLS-SEM is to examine relationships between the constructs (Ghozali & Latan, 2015).

RESULTS AND DISCUSSIONS

Results

According to the results, more than 60% of our respondents have been working professionally for more than five years, 25% have been there for less than two years, and the remaining respondents have only begun their first year of professional employment. The profiles also include 56% male and 44% female respondents, 80% of whom have earned bachelor's degrees with the remaining respondents holding postgraduate degrees.

Validity and Reliability

We distributed roughly 250 questionnaires and obtained 180 responses as the survey's results. According to Hair et al. (2016), it is imperative to examine the factors that contribute to the assessment of item validity before moving on to the next stage of research which is the measurement of the constructs' reliability and validity. Every latent variable already has AVE values more than 0.5 and a CR value greater than 0.7, thus they may all be regarded as reliable based on the processing results shown in the table.

The researchers go on to the following stage after verifying that all of the indicator values are appropriate for further examination. The validity and reliability of the constructs are next evaluated. The loading factors, composite reliability (CR), and average variance (AVE)

retrieved from the convergent validity test findings are listed below. After analyzing the loading factors the validity of each indicator can then be determined. For more details, the loading factors can be seen in table 1. If a loading's value is above 0.70, the value can be determined as valid (Hair et al., 2016).

Table 1. Loading Factors

<i>Variables</i>	<i>Loading factors</i>	<i>Verdict</i>	<i>AVE</i>	<i>CR</i>	<i>Verdict</i>
<i>Potential Absorptive Capacity</i>	0,769	<i>Valid</i>	0,623	0,927	<i>Reliable</i>
	0,817	<i>Valid</i>			
	0,708	<i>Valid</i>			
	0,773	<i>Valid</i>			
	0,823	<i>Valid</i>			
	0,762	<i>Valid</i>			
<i>Realized Absorptive Capacity</i>	0,791	<i>Valid</i>	0,678	0,921	<i>Reliable</i>
	0,800	<i>Valid</i>			
	0,815	<i>Valid</i>			
	0,832	<i>Valid</i>			
	0,829	<i>Valid</i>			
	0,871	<i>Valid</i>			
<i>Knowledge Management</i>	0,810	<i>Valid</i>	0,734	0,943	<i>Reliable</i>
	0,821	<i>Valid</i>			
	0,865	<i>Valid</i>			
	0,883	<i>Valid</i>			
	0,862	<i>Valid</i>			
	0,896	<i>Valid</i>			
<i>Innovation Capability</i>	0,899	<i>Valid</i>	0,768	0,952	<i>Reliable</i>
	0,892	<i>Valid</i>			
	0,898	<i>Valid</i>			
	0,829	<i>Valid</i>			
	0,840	<i>Valid</i>			
	0,898	<i>Valid</i>			

Table 1 shows that all variables have met the reliable requirements. Consequently, we analyzed the coefficient of determination (R^2), the result is the analysis of regression and is understood as the percentage of variance in endogenous variables that the exogenous variable can predict. It evaluates how well a proposed model predicts the future. An endogenous construct's squared

correlation with other endogenous constructs is measured. The R^2 ranges from 0 to 1; A higher value results in a higher level of R^2 ; 0.75 is substantial, 0.50 is moderate, and 0.25 is considered weak (Hair et al., 2019). From the results of the study, Table 2 performs the result of R^2 ; potential absorptive capacity (substantial; 0.764), realized absorptive capacity (moderate; 0.490), knowledge management (moderate; 0.661), innovation capability (moderate, 0.710). In conclusion, all the results of R^2 show a sufficient level of R^2 .

Table 2. R Square

	R Square
<i>Potential Absorptive Capacity</i>	0.764
<i>Realized Absorptive Capacity</i>	0.490
<i>Knowledge Management</i>	0.661
<i>Innovation Capability</i>	0.710

According to Hair et al. (2019), discriminant validity refers to how distinct a construct is from other constructs. The Fornell Larcker criterion states that a construct's AVE scores must be less than the common variance of all model constructs. According to the study's findings, the AVE scores for each concept are lower than their shared variance (Table 3). As a result, the Fornell Larcker criterion was evaluated to establish discriminant validity.

Table 3. The summary of the Fornell-Larcker Criterion

	PAC	RAC	KM	IC
<i>Potential Absorptive Capacity</i>	0.814			
<i>Realized Absorptive Capacity</i>	0.455	0.804		
<i>Knowledge Management</i>	0.395	0.339	0.730	
<i>Innovation Capability</i>	0.587	0.384	0.400	0.801

Additionally, cross-loadings can be examined to assess discriminant validity. The discriminant validity manifests when a construct's loading value exceeds all of its cross-loading values on the other constructs (Rahayu et al., 2021). According to Table 3, all indicators' outer loading values for each construct were higher than all of their cross-loading values for the other constructs. The cross-loading value analysis led to the discovery of discriminant validity.

Problems with discriminant validity also develop when HTMT values exceed 0.900. If HTMT exhibits a value of $0 > 0.900$ and lacks discriminant validity, the construct may be similar. Table 4 showed that all HTMT values were less than 0.900. The findings reveal that the values significantly deviated from 1. The Heterotrait-Monotrait correlation ratio (HTMT), which must be less than 0.85 for each correlation is often referred to as construct discriminant validity (Hair et al., 2019). Consequently, it can be inferred from Table 4 that HTMT values are generally recognized and exhibit a high level of discriminant validity. It is possible to conclude that all

of the data satisfies the requirements of the measurement model so that it is regarded as legitimate and reliable.

Table 4. The summary of the discriminant validity test (HTMT)

	PAC	RAC	KM
<i>Potential Absorptive Capacity</i>			
<i>Realized Absorptive Capacity</i>	0.851		
<i>Knowledge Management</i>	0.322	0.714	
<i>Innovation Capability</i>	0.195	0.491	0.630

Direct Effects

Afterward, the researchers proceeded with the interpretation of the path coefficients. Further steps were conducted after confirming that the necessary validity and reliability requirements have been met. After all, the requirements for the validity and reliability aspects are accomplished, the measurement process proceeds to the path coefficient interpretation stage using the SmartPLS software. We also test the reliability of the constructed variable under study. After the preliminary processes are undertaken, levels of significance were checked. Results found that there was one construct with a value above the p-value of 0.05 so hypothesis 2 (H2) was rejected. Therefore, it can be concluded that the absorption of realization does not significantly affect the ability of innovation.

Positive path coefficients are present for the other direct effects. However, even if the effects are significant, the path coefficients are positive. Thus, we must also reject hypothesis 3. The remaining hypotheses, which are hypotheses 1, 4, and 5, exhibit significant p-values and positive route coefficients (all below 0,05). The association between realized absorptive capacity and innovation is the only one of all the direct impact hypotheses with a negative path coefficient. As a result, the fourth and fifth hypotheses are accepted. Table 5 shows a summary of these discussions.

Table 5. Path Coefficients of the Direct Effects

Hypotheses	Statements/Paths	Path Coefficients	P-Values	t-stat	Verdict
H1	Potential ACAP -> innovation capability	0,251	0,034		H1 accepted
H2	Realized ACAP -> innovation capability	-0,026	0,842		H2 rejected
H3	Potential ACAP -> knowledge management	0,221	0,079		H3 rejected
H4	Realized ACAP -> knowledge management	0,724	0,000		H4 accepted
H5	Knowledge management -> innovation capability	0,520	0,000		H5 accepted

Indirect Effects

The researchers looked at the indirect consequences after looking at all of the direct effects. Knowledge management as a mediating effect led to the creation of two indirect effects in the research framework. By leveraging knowledge management as a mediating factor, our research using the SmartPLS software demonstrated that prospective absorptive capacity has a good indirect effect on innovation potential. Since the p-value (0,121) exceeds the 0.05 cutoff value, it cannot be regarded as significant. As a result, hypothesis 6 is rejected. While the p-value and route coefficient for hypothesis 7 are both significant. Knowledge management is taken into account as a mediating variable in the acceptable form of hypothesis 7 (realized absorptive capacity has a positive and significant indirect effect on innovative capability). Here is a list of some indirect impacts shown in Table 6.

Table63. Path Coefficients of the Indirect Effects

Hypotheses	Statements/Paths	Path Coefficients	P-Values	Verdict
H6	Potential ACAP -> Knowledge Management -> innovation capability	0,136	0,121	Rejected
H7	Realized ACAP -> Knowledge Management -> innovation capability	0,517	0,001	Accepted

Discussions

The findings have proven that if people have good knowledge management skills, their realized absorptive capacity will be higher and this will have a positive impact on their potential to innovate. This result will boost their level of productivity and produce positive results for the business. These findings are consistent with the studies done by Fainshmidt et al. (2016) and Demir et al (2021).

CONCLUSION

Our results show that there is no significant association between either type of absorptive capacity and innovative capability. Innovative capability does not greatly lag behind absorptive capacity, whether potential or realized. However, when knowledge management is incorporated as a mediating element, realized absorptive capacity has a positive and significant indirect impact on innovative capability.

Knowledge creation and/or accumulation could need some industrial preconditions related to the complementarity between the various knowledge bases. More broadly, this argument focuses on the industrial dynamics based on knowledges that support the process' viability, including the various stages of development regarding each company's technological strategy for the division of labor, and technological protocols that either support or hinder such collaboration. Second, institutional impediments might prohibit knowledge from being shared with the public, foster skepticism of the dissemination of academic findings, or simply prevent

the connected parties from receiving reliable information. Here is the clear difference between the effects of potential and realized absorptive capacity. Throughout our investigation, we have found that instead of potential absorptive capacity, realized absorptive capacity has a more significant indirect impact on innovative capability.

The researchers conclude that there is a need to stress the existence of knowledge management based on the study's findings. Continuous knowledge management is necessary for effective knowledge absorption management and the development of innovative ideas. The findings of this study may be useful to employers who are trying to hire recent graduates or young professionals with limited job experience.

The researchers realize that every study has its limits. This study has time and geographic restrictions because the data taken was only concentrated on people who attended one business school. Additionally, this study did not identify the industries that young professionals work in. As a result, the outcome may vary based on the demands or industry focus. When applied to family firms or smaller industries, this study's findings and conclusions might not be entirely accurate.

In addition, the researchers suggest that future studies investigate how innovation is impacted by information sharing and absorptive capacity in the context of small and medium-sized firms (SMEs). Additional variables not included in the research model may also affect how innovation capability grows, especially in Indonesian SMEs.

REFERENCES

- Al-Kurdi, O., El-Haddadeh, R., & Eldabi, T. (2018). Knowledge sharing in higher education institutions: a systematic review. *Journal of Enterprise Information Management*, 31(2), 226–246. <https://doi.org/10.1108/JEIM-09-2017-0129>
- Al Ahbabi, S. A., Singh, S. K., Balasubramanian, S., & Gaur, S. S. (2019). Employee perception of impact of knowledge management processes on public sector performance. *Journal of Knowledge Management*, 23(2), 351–373. <https://doi.org/10.1108/JKM-08-2017-0348>
- Andreeva, T., and Kianto, A. (2011). Knowledge process, knowledge intensity and innovation: a moderated mediation analysis. *Journal of Knowledge Management*, Vol. 15, No. 6, pp. 1016-1034.
- Azorin, J.F.M. (2014), “Microfoundations of strategic management: toward micro-macro research in the resource-based theory”, *Business Research Quarterly*, Vol. 17, pp. 102-114.
- Babič, K., Černe, M., Connelly, C. E., Dysvik, A., & Škerlavaj, M. (2019). Are we in this together? Knowledge hiding in teams, collective prosocial motivation and leader-member exchange. *Journal of Knowledge Management*, 23(8), 1502–1522. <https://doi.org/10.1108/JKM-12-2018-0734>
- Barley, W. C., Treem, J. W., & Kuhn, T. (2018). Valuing Multiple Trajectories of Knowledge: A Critical Review and Agenda for Knowledge Management Research. *Academy of Management Annals*, 12(1), 278–317. <https://doi.org/10.5465/annals.2016.0041>
- Bendig, D., Strese, S., Flatten, T.C., da Costa, M.E.S. and Brettel, M. (2018), “On micro-foundations of dynamic capabilities: a multi-level perspective based on CEO personality

- and knowledge-based capital”, *Long Range Planning*, Vol. 51 No. 6, pp. 797-814.
- Bhatti, S. H., Kiyani, S. K., Dust, S. B., & Zakariya, R. (2021). The impact of ethical leadership on project success: the mediating role of trust and knowledge sharing. *International Journal of Managing Projects in Business*, 14(4), 982–998. <https://doi.org/10.1108/IJMPB-05-2020-0159>
- Chichkanov, N. (2021). The role of client knowledge absorptive capacity for innovation in KIBS. *Journal of Knowledge Management*, 25(5), 1194–1218. <https://doi.org/10.1108/JKM-05-2020-0334>
- Demir, A., Budur, T., Omer, H. M., & Heshmati, A. (2021). Links between knowledge management and organisational sustainability: does the ISO 9001 certification have an effect? *Knowledge Management Research & Practice*, 1–14. <https://doi.org/10.1080/14778238.2020.1860663>
- El-Helaly, N., Ebeid, A., & El-Menbawey, A. (2015). The Role of Customer Knowledge Management Process in Service Recovery Performance: An Applied Study to the Egyptian National Railways. *International Journal Of Management and Applied Research*, 2(1), 1–21. <https://doi.org/10.18646/2056.21.15-001>
- Engle, R.L., Lopez, E.R., Gormley, K.E., Chan, J.A., Charns, M.P. and Van Deusen Lukas, C. (2016), “What roles do middle managers play in implementation of innovative practices?”, *Health Care Management Review*, Vol. 42 No. 1, pp. 14-27.
- Fainshmidt, S., Pezeshkan, A., Lance Frazier, M., Nair, A. and Markowski, E. (2016), “Dynamic capabilities and organizational performance: a meta-analytic evaluation and extension”, *Journal of Management Studies*, Vol. 53 No. 8, pp. 1348-1380.
- Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92–93, 102061. <https://doi.org/10.1016/j.technovation.2018.11.004>
- Foss, L., Iakovleva, T., Kickul, J., Oftedal, E. M., & Solheim, A. (2011). Taking Innovations to Market. *The International Journal of Entrepreneurship and Innovation*, 12(2), 105–116. <https://doi.org/10.5367/ijei.2011.0029>
- Ghozali, I., and Latan, H. (2015). *Partial Least Squares: Konsep, Teknik dan Aplikasi Menggunakan Progran SmartPLS 3.0 Untuk Penelitian Empiris*. Badan Penerbit Universitas Diponegoro Semarang.
- Gilang, A., Fakhri, M., Syarifuddin, S., Pradana, M., & Utami, D.P. (2019). Ethical leaderships and organizational culture of student organization at Indonesian Private University. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 2019, pp. 70-78.
- Gunjal, B. (2019). Knowledge Management: Why Do We Need it for Corporates. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3375572>
- Gupta, V., & Chopra, M. (2018). Gauging the impact of knowledge management practices on organizational performance – a balanced scorecard perspective. *VINE Journal of Information and Knowledge Management Systems*, 48(1), 21–46. <https://doi.org/10.1108/VJIKMS-07-2016-0038>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair, J. F., Sarstedt, M., Matthews, L. M., & Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: part I–method. *European Business Review*.

- Hasbi, I., Pradana, M., & Saragih, A.L.P. (2021). Literacy Of Organizational Culture’S Effects On Work Performance. *Academy of Strategic Management Journal*, 20(1), 1-6.
- Hassan, H., Hamzah, N., Saleh, N., & Kamaluddin, A. (2019). The Effect of Transformational Leadership Styles towards Managing Knowledge Assets. *Asian Journal of Accounting and Governance*, 11, 171–180. <https://doi.org/10.17576/ajag-2019-11-15>
- Hesniati, H., Margaretha, F., & Kristaung, R. (2019). Intellectual Capital, Knowledge Management, and Firm Performance in Indonesia. *European Journal of Business and Management Research*, 4(6). <https://doi.org/10.24018/ejbmr.2019.4.6.133>
- Howell, A. (2020). Agglomeration, absorptive capacity and knowledge governance: implications for public–private firm innovation in China. *Regional Studies*, 54(8), 1069–1083. <https://doi.org/10.1080/00343404.2019.1659505>
- Kawiana, I. G. P., Riana, I. G., Rihayana, I. G., & Adi, I. N. R. (2020). How transformational leadership intensify employee performance mediating by job satisfaction. *MIX: Jurnal Ilmiah Manajemen*, 10(3), 454-468.
- Khan, Z., Lew, Y. K., & Marinova, S. (2019). Exploitative and exploratory innovations in emerging economies: The role of realized absorptive capacity and learning intent. *International Business Review*, 28(3), 499-512.
- Levinthal, D. A. (2020). Learning in context: Grateful reflections on reflections. *Journal of International Business Studies*, 51(9), 1529-1531.
- Lin, H. (2007). Knowledge sharing and firm innovation capability: an empirical study. *International Journal of Manpower*, 28(3/4), 315–332. <https://doi.org/10.1108/01437720710755272>
- Liu, Xiaozhong. (2013). A New Method to Enhance. *Journal of the American Society for Information Science and Technology*, 64(July), 1852–1863. <https://doi.org/10.1002/asi>
- Liu, Xueyuan, Zhao, H., & Zhao, X. (2018). Absorptive capacity and business performance. *Industrial Management & Data Systems*, 118(9), 1787–1803. <https://doi.org/10.1108/IMDS-09-2017-0416>
- Lu, X., Zhou, H., & Chen, S. (2019). Facilitate Knowledge Sharing by Leading Ethically: the Role of Organizational Concern and Impression Management Climate. *Journal of Business and Psychology*, 34(4), 539–553. <https://doi.org/10.1007/s10869-018-9555-8>
- Mahmoudsalehi, M., Moradkhannejad, R., and Safari, K. (2012). How Knowledge Management affected by Organizational Structure. *The Learning Organization*, Vol. 12, No. 6, pp. 518-528.
- Mendoza-Silva, A. (2021). Innovation Capability: A Systematic Literature Review. *European Journal of Innovation Management*, Vol. 24, No. 3, pp. 707-734.
- Nawab, S., Nazir, T., Zahid, M.M., and Fawad, S.M. (2015). Knowledge Management, Innovation and Organizational Performance. *International Journal of Knowledge Engineering*, Vol. 1, No. 1, pp. 43-48.
- Nirawati, L., and Prayogo, R.R. (2018). Examining Relationship of Knowledge Sharing, Innovation Capability, Responsive Capability and Marketing Performance in Inkubator Bisnis at UPN “Veteran” East Java. *International Seminar of Research Month Science and Technology for People Empowerment*, pp. 539-548.
- North, K., and Kumta, G. (2018). Knowledge Management: Value Creation Through Organizational Learning, Second Edition. *Springer*.
- Onyeiwu, S. (2015). Does lack of innovation and absorptive capacity retard economic growth in Africa? *Growth and Institutions in African Development*, May, 41–58. <https://doi.org/10.4324/9781315745930-11>

- Oufkir, latifa, & Kassou, I. (2019). Performance measurement for knowledge management project: model development and empirical validation. *Journal of Knowledge Management*, 23(7), 1403–1428. <https://doi.org/10.1108/JKM-08-2018-0497>
- Pangarso, A., Astuti, E. S., Raharjo, K., & Afrianty, T. W. (2020). The impact of absorptive capacity and innovation ambidexterity on sustainable competitive advantage: the case of Indonesian higher education. *Entrepreneurship and Sustainability Issues*, 7(3), 2436.
- Pradana, M., Pérez-Luño, A., & Fuentes-Blasco, M. (2019). Revisiting measure of absorptive capacity: Applying the scales in spanish wine industry. *Journal of Management Information and Decision Sciences*, 22(4), 515-526.
- Presutti, M., Boari, C., Majocchi, A., & Molina-morales, X. (2019). Distance to Customers, Absorptive Capacity, and Innovation in High-Tech Firms: The Dark Face of Geographical Proximity. *Journal of Small Business Management*, 57(2), 343–361. <https://doi.org/10.1111/jsbm.12323>
- Rafique, M., Hameed, S., & Agha, M. H. (2019). Impact of instrumental ties, tacit knowledge sharing and affective commitment on absorptive capacity – an empirical study of pharmaceutical companies. *Technology Analysis & Strategic Management*, 31(2), 125–139. <https://doi.org/10.1080/09537325.2018.1490017>
- Rahayu, C. W. E., & Rahmawati, C. H. T. (2021). The Determinant Factors of Personal Financial Management of Indonesian Migrant Workers in Hong Kong. *MIX: Jurnal Ilmiah Manajemen*, 11(01), 349336.
- Rengkung, L. R., Pangemanan, L. R., & Lorraine, W. (2019). Pengaruh Tacit Knowledge terhadap Inovasi Produk pada Industri Kreatif Kerajinan di Kabupaten Minahasa, Sulawesi Utara. *MIX: Jurnal Ilmiah Manajemen*, 9(1).
- Risianto, D., Irawanto, D. W., & Mugiono, M. (2018). Peran Budaya Organisasi dalam Memediasi Pengaruh Gaya Kepemimpinan dan Etika terhadap Kinerja Perusahaan. *MIX: Jurnal Ilmiah Manajemen*, 8(1), 151-165.
- Saragih, R., Fakhri, M., Pradana, M., Gilang, A., & Vidjashesa, G. A. (2018). Ethical Leadership's Effect on Employee Discipline: Case of An Indonesian Telecommunication Company. In *Proceedings of the International Conference on Industrial Engineering and Operations Management*. pp. 1630-1638.
- Schweisfurth, T. G., & Raasch, C. (2018). Absorptive capacity for need knowledge: Antecedents and effects for employee innovativeness. *Research Policy*, 47(4), 687–699. <https://doi.org/10.1016/j.respol.2018.01.017>
- Singh, S. K., Gupta, S., Busso, D., & Kamboj, S. (2021). Top management knowledge value, knowledge sharing practices, open innovation and organizational performance. *Journal of Business Research*, 128, 788–798. <https://doi.org/10.1016/j.jbusres.2019.04.040>
- Silvianita, A. & Pradana, M. (2022). Absorptive Capacity And Knowledge Management As Antecedents To Innovation Capability, 14 March 2022, PREPRINT (Version 1) available at Research Square [<https://doi.org/10.21203/rs.3.rs-1430694/v1>]
- Song, Y., Gnyawali, D. R., Srivastava, M. K., & Asgari, E. (2018). In search of precision in absorptive capacity research: A synthesis of the literature and consolidation of findings. *Journal of Management*, 44(6), 2343-2374.
- Su, X., Lin, W., Wu, J., Zheng, Q., Chen, X., & Jiang, X. (2021). Ethical Leadership and Knowledge Sharing: The Effects of Positive Reciprocity and Moral Efficacy. *SAGE Open*, 11(2), 215824402110218. <https://doi.org/10.1177/21582440211021823>
- Sugiyono, S. (2017). *Quantitative and Qualitative Methodologies in R&D*. 25th edition. Bandung: Alfabeta.

- Suryaningrum, A. G., & Silvianita, A. (2018). Analisis Faktor-Faktor Employee Engagement Tenaga Keperawatan dan Penunjang Medik di Rumah Sakit Muhammadiyah Bandung. *Sosiohumanitas*, 20(1).
- Sulistijono, S., Pradana, M., Hasbi, I., Nugraha, D. W., Siregar, M. A. H., & Habibi, R. (2020). Web-based application of high school laboratory administration: Case study at sma pasundan 8, Bandung, Indonesia. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 2020. Detroit, USA: IEOM Society International.
- Swanson, E., Kim, S., Lee, S.-M., Yang, J.-J., & Lee, Y.-K. (2020). The effect of leader competencies on knowledge sharing and job performance: Social capital theory. *Journal of Hospitality and Tourism Management*, 42, 88–96. <https://doi.org/10.1016/j.jhtm.2019.11.004>
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.640>
- Teofilus, S. K. S., Sutrisno, T. F., & Kurniawan, A. (2020). Analyzing Entrepreneurial Marketing on Innovative Performance. *MIX: Jurnal Ilmiah Manajemen*, 10(1), 78-90.
- Winarno, A., & Hermana, D. (2019). Commitment, work engagement, and research performance of lecturers, in Indonesia private universities. *Malaysian Online Journal of Educational Management*, 7(4), 45-63.
- Yi, J. (2009). A measure of knowledge sharing behavior: scale development and validation. *Knowledge Management Research & Practice*, 7(1), 65–81. <https://doi.org/10.1057/kmrp.2008.36>
- Zahra, S. A., & George, G. (2002). Absorptive Capacity: A Review, Reconceptualization, and Extension. *The Academy of Management Review*, 27(2), 185. <https://doi.org/10.2307/4134351>
- Zhang, W., and Zhang, W. (2018). Knowledge Creation through Industry Chain in Resource-based Industry: Case Study on Phosphorus Chemical Industry Chain in Western Guizhou of China. *Journal of Knowledge Management*, Vol. 22, Issue. 5, pp. 1037-1060.
- Zhou, M., Govindan, K., Xie, X., & Yan, L. (2021). How to drive green innovation in China's mining enterprises? Under the perspective of environmental legitimacy and green absorptive capacity. *Resources Policy*, 72, 102038.