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# Empowerment of Indonesian MSME Business Performance: An Empirical Analysis of Knowledge Sharing and Innovation

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**Abstract**
The wheel of a country's economy is driven by the growth of Micro, Small, and Medium Enterprises (MSMEs). Structural socio-economic changes from MSME business activities can improve people's living standards, such as absorbing jobs, fostering a sustainable business climate, and equal distribution of people's income. Along with the increasing number of MSMEs, business actors are required to strengthen business performance through innovation orientation in the products they produce. Knowledge sharing is one of the competitive advantages built by the company so that MSMEs are guided in carrying out business activities. Acquiring knowledge and skills through collaboration is an effective and efficient effort to innovate in the business environment. This study examines knowledge sharing and product innovation in MSME performance management. The study used a quantitative method of 225 respondents based on purposive sampling criteria. The implementation of Structural Equation Modelling (SEM) with the AMOS 24 statistical tool was applied to test the feasibility of the data and research hypotheses.

**Keywords: Knowledge Sharing; Product Innovation; Business Performance**

## Introduction

Indonesia's small and medium enterprises (MSMEs) play a strategic role in national development. Facts show that MSMEs can increase economic growth (Faisal, Hermawan, & Arafah, 2018; Sijuang, 2018). In today's global economy, small and medium enterprises (MSMEs) are considered engines that support economic performance and development (Islam et al., 2011). In supporting business performance, MSMEs must have knowledge. The knowledge possessed by MSMEs can be shared to support the performance of the business being run. Sharing knowledge is an ability to create networks and build relationships for an organization (Ngugi & Johnsen, 2010). Within organizations, knowledge sharing occurs between individuals regarding ideas, suggestions, experiences, expertise, and skills. (Liao et al., 2007; Bartol & Srivastava, 2002). Sharing knowledge is very important in dealing with uncertainty about competition and client willingness that continues to grow. Knowledge-sharing activity is one of the competitive advantages that a company must own so that it allows a newly initiated business entity, such as a start-up, to be guided in carrying out its business activities. Also, it can control risks and open up opportunities to existing in the implementation and management of an efficient design construct (Yesil, Koska, & Buyuknbase, 2013). Companies are continuously required to be able to face a very tight competitive field in order to be able to proliferate and accommodate a dynamic business environment. It is implications for sharing knowledge referring to providing information and knowledge to help others collaborate, solve problems, develop new ideas, or implement policies or procedures (Cummings, 2004).

Small and Medium Enterprises (MSMEs) are one of the supporting sectors in economic growth, where their role is not only to provide employment but also to contribute to Gross Regional Income (GDP) and foreign exchange (Sarwono, 2015). The MSME sector is one of the most effective solutions for reducing unemployment and overcoming the problem of economic inequality that occurs (Rahayu, 2017), as evidenced by Data from the Ministry of Cooperatives and UMKM of the Republic of Indonesia (2018) stating that the growth in the number of UMKM continues to increase. In 2016, there were 61.7 million business units. Then it increased by 2.06% to 62.9 million business units in 2017. In 2018, the increase was increasingly visible from the data composition, where the number of micro-businesses reached 63.5 million units, Small businesses reached 783 thousand units, and Medium Enterprises reached 60 thousand units. The more MSMEs in Indonesia increase, the competition also increases, thus encouraging MSMEs to innovate. Innovation can also be used as a strategy to achieve superior marketing performance. Presenting product innovation means presenting creative ideas in an organization. The ability to innovate a product gives meaning to the creation of competitive advantage and increased efficiency, which helps support performance improvements in the present and the future (Vidal et al., 2012). The main goal of innovation is to meet market demand so that product innovation can be used as a marketing performance for companies (Wahyono, 2002). Innovation is facilitated by modern infrastructure, technology, and economic resources, but mainly through knowledge sharing among workers. According to Cardinal, Allesandri, and Turner (2001), innovation integrates technical, physical, and related knowledge components into product development. With innovation and creativity from both business actors and employees, the impact is not only on product quality but also on increasing sales. Products are difficult to imitate and can absorb more labor (Heye, 2006; Loewe & Dominiquini, 2006). Sharing knowledge and open innovation is very important in solving the problem of uncertainty with competitive reactions. Client expectations that have developed until now (Yesil, Koska, & Buyuknbase, 2013) explain the importance of sharing knowledge in achieving innovation capabilities. Knowledge-sharing activities are one of the advantages competitive advantages that companies need to have (Nwaiwu et al., 2020; Usaman, Hatani & Sroka, 2020; Jalal, Touson & Tweed, 2013; Cabrera, Colins & Salgado, 2006; Spender & Grant, 1996; Nonaka, 1991).

## Materials and Methods

### 1.Materials

### 1.1. Knowledge Sharing and Product Innovation

The driving factor for innovation is knowledge sharing. Innovation only occurs with knowledge sharing (Kremer, Villamor, & Aguinis, 2019). Acquiring knowledge and skills through collaboration has become an effective and efficient way of successful innovation (Adams, Day, & Dougherty, 1998). Lin (2007) explains that gathering and donating knowledge are fundamental concepts influencing a company's innovation ability. The current organization is a knowledge era, where only organizations that can manage their knowledge optimally can survive in a competitive environment (Chauhan, Bontis, and Kawalek in Aulawi et al., 2009). Knowledge sharing is an essential means by which employees can contribute to knowledge application, innovation, and, ultimately, competitive advantage (Vij & Farooq, 2014). The critical behavior of employees in sharing knowledge can produce an innovative attitude that benefits the company (Andrawina, 2008).

**$H_1$:** ***Knowledge sharing has a significant effect on product innovation.***

### 1.2. Product Innovation and Business Performance

Innovation can fully use existing resources, increase efficiency and potential value and bring new intangible assets to the organization. Companies with more significant innovation efforts will be more successful in responding to customer needs and developing new capabilities that enable them to achieve better performance or superior profitability (Calantone, Cavusgil & Zahao, 2002). Zahra et al. (1999) argue that successful innovation is increasingly seen as a contributing factor to higher business performance in several industries and sectors and can strengthen a firm's competitive advantage and help firms survive in the marketplace (Gunasekaran et al., 2000; Sanz-Valle & Jimenez-Jimenez, 2011). Jiménez-Jiménez & Sanz-Valle (2011) revealed that business performancedepends on the number of innovations, the nature, and the company's resources invested in innovation. The application of high innovation in an organization will be more successful in responding to environmental changes and developing new capabilities to achieve better performance (Chen

et al., 2010). Product innovation as a combination of various interacting processes is categorized as a new product for the world, namely new product lines, additions to existing product lines, revisions to existing products, and redefining and reducing costs (Kotler, 2007; Nasution, 2005). As organizations face rapid technological change, shorter product life cycles, and globalization, they must be more creative and innovative to survive, compete, grow and lead. Innovation through creativity is significant for the success of companies (Gumusluoğlu & Ilsev, 2009).

**$H_2$:** ***Product innovation has a significant effect on business performance***

### 1.3 Knowledge Sharing and Business Performance

Knowledge sharing is an organizational process that plays an essential role in generating business opportunities by creating new ideas as performance enhancement (Xue et al., 2011). McInerney and Day (2007) explain knowledge sharing related to relationships between co-workers, which support exchanging information and learning. Research results from Hogel et al. (2003) concluded that perceptions of teamwork in organizations related to the organizational climate for knowledge sharing, preference for team networks, and perceptions of the importance of team networks for project success positively influence the building of individual networks. Kang et al. (2008) have concluded that the trust between individuals involved in knowledge sharing positively influences knowledge sharing and individual work performance. Organizations can grow and have superior performance if they are able to manage their knowledge as a knowledge asset that is rare and cannot be replicated, especially in the digital economy era (Keszey, 2018). Efforts that need to be made in the future are human resource development and knowledge sharing among employees to improve human capabilities to generate innovation (Setiarso, 2007).

**$H_3$:** ***Knowledge sharing has a significant effect on business performance.***

## 2. Methods

### 2.1 Measurements

This causal research uses questionnaires distributed to respondents who are considered to meet predetermined criteria. The questionnaire uses a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Knowledge sharing is measured based on six dimensions developed by (Nodari et al., 2016). Product innovation is measured using ten adapted items (Setiawan & Purmono., 2014). Meanwhile, business performance is measured using five items adapted from (Al-Ansari et al., 2013).

### 2.2 Sampling and Data Collection

The number of samples studied and collected in this study was 255 respondents. The sample involved is MSME actors who are domiciled in Indonesia, have businesses that have been operating for at least one year and involve elements of technology in running a business. Sampling locations were distributed in various cities in Indonesia, such as Jakarta, Bandung, Medan, Surabaya, Semarang, Samarinda, Banjarmasin, Makassar, Pontianak, and various other regions of Indonesia, through online questionnaires.

### 2.3 Data Analysis

This study uses Structural Equation Modeling (SEM) with statistical tools AMOS 24 to analyze and evaluate the measurement model and structural model of the built research construct. The fit test model will be assessed based on the goodness of fit index parameters such as chi-square ($\chi 2$), CMIN/DF, Root Mean Square Error of Approximation (RMSEA), root means squared residual (RMR), goodness of fit index (GFI), Tucker Lewis Index (TLI), Incremental Fit Index (IFI), Comparative Fit Index (CFI), Normal Fit Index (NFI). The validity evaluation will rely on the standardized loading factor (SLF) value, which must be $\geq 0.50$ (Hair et al., 2014), and the reliability construct will rely on the tabulated results of construct reliability (CR) and average variance extracted (AVE) values. Furthermore, the SEM analysis is a structural model analysis to assess the research hypothesis that has been built and whether it is accepted or rejected. SEM analysis will display the t-value for each coefficient. The hypothesis can have a causal relationship if the t-count value $\geq$ t table (1.96) with a significant level of $\alpha = 0.05$.

## Results and Discussion

### 1. Respondent Characteristics

Respondents who filled out the questionnaire were primarily male (56%), aged 24-38 years (54%), micro business category (94%), service business sector (32%), business length 1-3 years, and income 1 – 10 million rupiah (65%).

**Table 1. Characteristics of Respondents**

| Category | Item | F | % |
|---|---|---|---|
| Gender | Male | 143 | 56 |
| | Female | 112 | 44 |
| | **Total** | **255** | **100** |
| Age | 15-16 Year | 5 | 2 |
| | 17-23 Year | 50 | 20 |
| | 24-38 Year | 139 | 54 |
| | >38 Year | 61 | 24 |
| | **Total** | **255** | **100** |
| Business Category | Micro Business (Having Business Capital of At Most 1 Billion) | 239 | 94 |
| | Small Business (Having Business Capital of More Than 1 Billion Up to 5 Billion) | 14 | 5 |
| | Medium Business (Have Business Capital Above 5 Billion Up To 10 Billion) | 2 | 1 |
| | **Total** | **255** | **100** |
| Business Sector | Fashion | 63 | 25 |
| | Food and Drink | 79 | 31 |
| | Crafts | 13 | 5 |
| | Publishing and Printing | 19 | 7 |
| | Service | 81 | 32 |
| | **Total** | **255** | **100** |
| Duration of Running a Business | < 1 Year | 50 | 19 |
| | 1 to 3 Years | 119 | 47 |
| | 3 to 5 Years | 71 | 28 |
| | > 5 Years | 15 | 6 |
| | **Total** | **255** | **100** |
| Income in a Month (Rupiah) | 1 Million To <10 Million | 167 | 65 |
| | 10 Million To <25 Million | 67 | 26 |
| | 25 Million To <50 Million | 18 | 7 |
| | 50 Million To <100 Million | 3 | 2 |
| | > 100 Million | - | - |
| | **Total** | **255** | **100** |

### 2. Measurement and Structural Models

Analysts test the validity of each research instrument using AVE and factor loading while the reliability test in the study uses Cronbach Alpha and Composite Reliability.

**Table 2. Measurement Model Results**

| Items | | SLF | CR | VE |
|---|---|---|---|---|
| Knowledge Sharing | When our employees learn something new, they share the subject with their colleagues | 0,935 | 0.990 | 0.881 |

| | | | | |
|---|---|---|---|---|
| | Our employees share the information they have with their colleagues | 0,951 | | |
| | Our employees regularly share what they do with their colleagues | 0,966 | | |
| | When our employees need some specific knowledge, they ask their colleagues | 0,932 | | |
| | Our employees ask the colleagues to share their skills when they need to learn something | 0,937 | | |
| | When one employee is good at something, the others employees ask him to | 0,910 | | |
| Product Innovation | Expressly introduction of new products | 0,944 | 0.995 | 0.882 |
| | Replacement of products being phased out | 0,936 | | |
| | Extension of product range within main product field through new products | 0,936 | | |
| | Extension of product range outside main product field | 0,954 | | |
| | Development of environment-friendly products | 0,950 | | |
| | Market share evolution | 0,942 | | |
| | Opening of new markets abroad | 0,931 | | |
| | Opening of new domestic target groups | 0,939 | | |
| | Developing new product features | 0,916 | | |
| | Reposition of existing products | 0,941 | | |
| Business Performance | Our firm's customer satisfaction | 0,947 | 0.992 | 0.909 |
| | Our firm's sales growth | 0,958 | | |
| | Our firm's profit growth | 0,979 | | |
| | Our firm's return on investment | 0,959 | | |
| | Our firm's market share | 0,924 | | |

Table 2 is the result of testing the validity and reliability of the overall model. The standardized loading factor (SLF) value of all indicator variables in the full model is above 0.50. It means that all indicators are declared valid and believed to be able to measure the construct of the entire model being built. The results of the reliability test present relevant results. All instruments are declared reliable and can consistently measure the constructs of the entire model built. It is shown from the avariance extracted (AVE) value of all instrument indicators, which obtain a value of ≥ 0.50, and the value of construct reliability (CR) which obtains a value of ≥ 0.70.

**Table 3. Goodness of Fit Index**

| Goodness of Fit Index | Cut off Value | Results |
|---|---|---|
| RMR | ≥0,50 | 0,009 |
| NFI | ≥0,90 | 0,908 |
| IFI | ≥0,90 | 0,924 |
| TLI | ≥0,90 | 0,915 |
| CFI | ≥0,90 | 0,924 |

Table 3 is the result of the fit test model. The model fit test results show that the model's suitability requirements can be accepted and declared fit. Five measurements show the degree of good fit. Hair et al. (2014) state that a research model construct can be declared fit and accepted if three to four measurements obtain a degree of good fit or above the cut-off value.

## 3. Hypotheses Testing

The results of testing the causal relationship between variables in the structure of this study are as follows.

**Table 4. Path Analysis**

| Hypotheses | Path | Estimate | S.E. | C.R. | P | Conclusion |
|---|---|---|---|---|---|---|
| $H_1$ | Product_innovation <-- Knowledge_sharing | 0,960 | 0,042 | 22,731 | *** | *Significant* |
| $H_2$ | Business_performance <-- Knowledge_sharing | 0,321 | 0,070 | 2,708 | 0,007 | *Significant* |
| $H_3$ | Business_performance <-- Product_innovation | 0,807 | 0,071 | 11,303 | *** | *Significant* |

Based on Table 4, the t-count value, the effect of knowledge sharing on product innovation is 22.731, more significant than the t-table value (1.96). Likewise, the p-value is less than 0.001, smaller than 0.05 ($\alpha = 0.05$). These results are related to the first hypothesis, where knowledge sharing has a positive and significant effect on productivity. For the second hypothesis, the t-value, the effect of knowledge sharing on business performance is 2.708, and the p-value is less than 0.001. It proves that knowledge sharing positively and significantly affects business performance. For the third hypothesis, the t-value, the effect of product innovation on business performance is 11.303, and the p-value is less than 0.001. It shows that product innovation positively and significantly affects business performance.

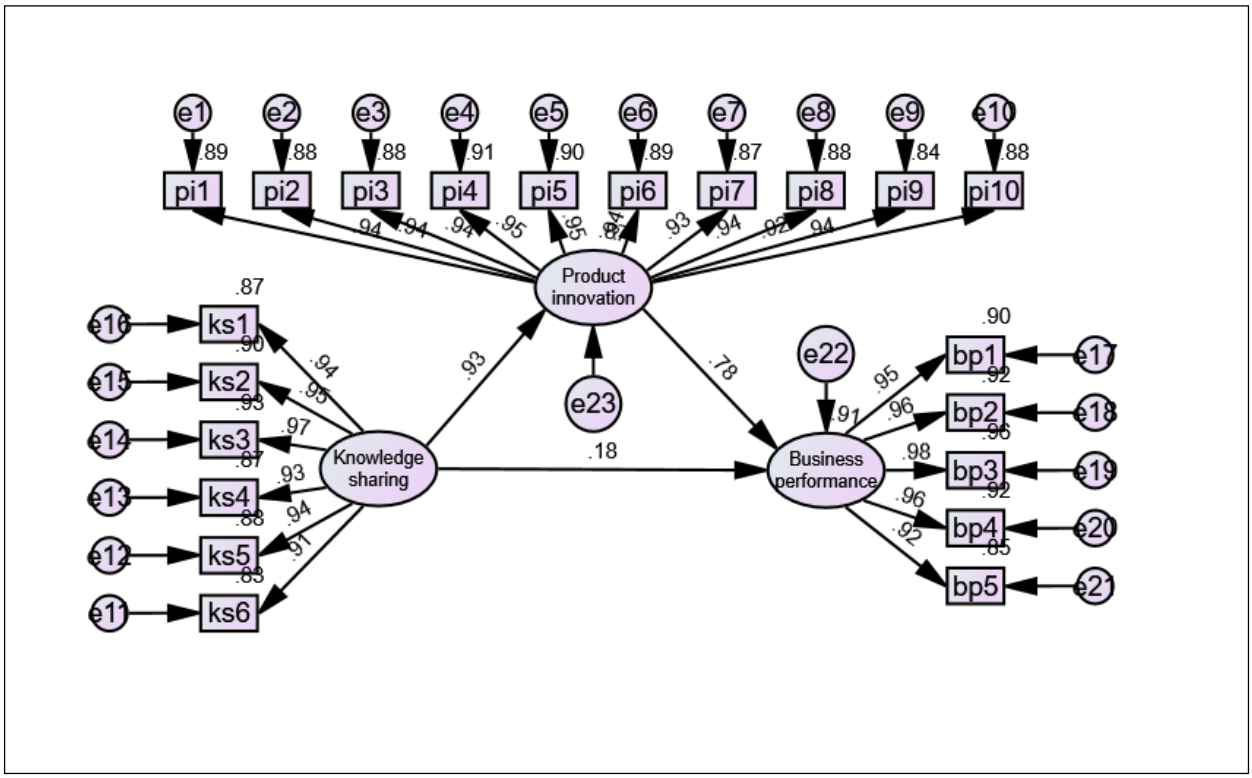


***Figure 1.*** **Full Model Structural Test**

**Table 5.** ***Sobel Test***

| | Sobel test statistic | Two- tailed probability |
|---|---|---|
| Knowledge sharing --> product innovation --> business performance | 2.69 | 0.007 |

Based on the Sobel test results in Table 5, the Sobel test statistical value was 2.69, and the p-value was 0.007. These results indicate that the statistical value of the Sobel test is greater than the t-table (1.96).

Likewise, the p-value obtained is smaller than 0.05 ($\alpha = 0.05$). It shows a significant indirect effect of Knowledge sharing on business performance through product innovation.

## Conclusions

Sharing knowledge has a positive and significant influence on innovative products in Indonesian SMEs. As explained by Thobing (2007), Sharing Knowledge is an exchange of knowledge between two individuals; one person communicates knowledge, while another person assimilates that knowledge. This research has proven that knowledge sharing is one of the determining factors determining the increase in innovation. The implementation of knowledge sharing has been very well done, and the resulting innovations are also outstanding. The SMEs feel the benefits of implementing knowledge sharing, which is carried out during the incubation period, can increase innovation both in processes and products produced, with knowledge sharing UMKM Through the exchange of information, both knowledge and experience, new knowledge will be formed that is used to create innovation (Dodi Jayen Suwarno, Anita Silvianita, 2017)

Knowledge sharing can only be done if each member of a group or organization is allowed to provide opinions, ideas, criticisms, and comments on other group members. The higher knowledge sharing is the higher one's business performance (Alliyah, 2019). The importance of sharing knowledge for MSMEs is because sharing knowledge can develop abilities and competencies and improve the performance of MSMEs so that, in the end, it has a positive influence on business performance. This is also supported by studies conducted by Wijk, Jansen, & Lyles (2017) and Weber & Weber (2010), which also state that sharing knowledge has a positive effect on company performance.

Innovation is considered a strong predictor of firm performance. Innovation is indeed vital for companies to survive changing market conditions. Artz, Norman, Hatfield, & Cardinal (2010) also stated that companies that innovate by introducing new products to the market would get better profits. This finding implies that SMEs understand that innovation enables them to improve their business performance. Miller and Floricel (2004) argue that a firm is able to achieve high levels of business performance by adapting capabilities to meet the different requirements of value creation and capturing the particular game of innovation (e.g., competitive and technological context) in which it has chosen to compete.

## Data Availability

The data already in sub results and discussion

## Conflicts of Interest

The author declare that there is no conflict of interest regarding the publication of this paper.


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The punding of this research from author self


## Authors' contributions

Authors may use the following word for this section. "_firs author' designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. "secoun author author and 'third author ' managed the analyses of the study. "fourth author 'and "firth author " managed the literature searches .. all author read and approved the final manuscript.


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**References**


1. Faisal, Hermawan, & Arafah, 2018; Sijabat, 2018.The Influence of Strategic Orientation on Firm Performance Mediated by Social Media Orientation at MSMEs, August 2018,DOI:10.23958/ijsei/vol04-i08/03
2. Muzenda, A. (2014). A conceptual model of the determinants of performance of tourism sector small and medium enterprises (SMEs). *International Journal of Business and management invention*, *3*(1), 30-35.
3. Liao, S. H., Fei, W. C., & 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.
4. Islam, M. A., Khan, M. A., Obaidullah, A. Z. M., & Alam, M. S. (2011). Effect of entrepreneur and firm characteristics on the business success of small and medium enterprises (SMEs) in Bangladesh. *International Journal of Business and Management*, *6*(3), 289.
5. Ngugi, & Johnsen, R. E. (2010). Relational Capabilities for Value Co-Creation and Innovation in SMEs. Journal of Small Business and Enterprise Development, 17(2), 260-278.
6. Bartol, K. M., & Srivastava, A. (2002). Encouraging knowledge sharing: The role of organizational reward systems. *Journal of leadership & organizational studies*, *9*(1), 64-76.
7. Sarwono, H. A., & Erwin, R. (2015). Profil Bisnis Usaha Mikro, Kecil Dan Menengah (Umkm). *Bank Indonesia Dan LPPI*, 1-135
8. Yeşil, S., Koska, A., & Buyukbese, T. (2013). Knowledge Sharing Process, Innovation Capability and Innovation Performance: An Empirical Study. Procedia - Social and Behavioral Sciences, 75, 217-225. doi: 10.1016/j.sbspro.2013.04.025
9. Abdul-Jalal, H., Toulson, P., Tweed, D. (2013) 'Knowledge sharing success for sustaining organizational competitive advantage', Procedia Economics and Finance, 7(5), pp. 150- 157.
10. Cabrera, A., Collins, W. C., & Salgado, J. F. (2006). Determinants of individual engagement in knowledge sharing. *The International Journal of Human Resource Management*, *17*(2), 245-264.
11. Nonaka, I. (1991), ``The knowledge creating company'', Harvard Business Review, November-December, pp. 96-104
12. Nwaiwu, F., Duduci, M., Chromjakova, F., & Otekhile, C. A. F. (2020). Industry 4.0 concepts within the Czech SME manufacturing sector: an empirical assessment of critical success factors. *Business: Theory and Practice*, *21*(1), 58-70.
13. Usman, I., Hartani, N. H., & Sroka, M. (2020). Wyniki operacyjne msp: Wpływ przedsiębiorczości, lidera, dobre zarządzanie i zarządzanie procesami biznesowymi. *Polish Journal of Management Studies*, *21*(1), 408-418.
14. Naughton, P. J., Grant, G., Spencer, R. J., Bardocz, S., & Pusztai, A. (1996). A rat model of infection by Salmonella typhimurium or Salm. enteritidis. *Journal of applied bacteriology*, *81*(6), 651-656.
15. Cummings, J. N. (2004). Work groups, structural diversity, and knowledge sharing in a global organization. Management Science, 50(3), 352-364.
16. Wahyono, 2002, Orientasi Pasar dan Inovasinya: Pengaruhnya Terhadap Kinerja Pemasaran, Jurnal Sains PemasaranIndonesia, Vol.1 N0.1. Hal 23-40
17. Rahayu, R., & Day, J. (2017). E-commerce adoption by SMEs in developing countries: evidence from Indonesia. *Eurasian Business Review*, *7*(1), 25-41.
18. Fernández-Mesa, A., Alegre-Vidal, J., Chiva-Gómez, R., & Gutiérrez-Gracia, A. (2013). Design management capability and product innovation in SMEs. *Management Decision*.
19. Cardinal, L. B., Alessandri, T. M., & Turner, S. F. (2001). Knowledge codifiability, resources, and science-based innovation. *Journal of knowledge management*.
20. Heye, D. (2006). Creativity and innovation: Two key characteristics of the successful 21st century information professional. Business Information Review, 23(4), 252–257. https://doi.org/10.1177/0266382106072255

21. Loewe, P., & Dominiquini, J. (2006). Overcoming the barriers to effective innovation. Strategy and Leadership, 34(1), 24–31. https://doi.org/10.1108/10878570610637858
22. Kremer, H., Villamor, I., & Aguinis, H. (2019). Innovation leadership: Best-practice recommendations for promoting employee creativity, voice, and knowledge sharing. *Business Horizons*, *62*(1), 65-74.
23. Rogers, E. M.(1995). Diffusion of innovations (4th ed.). New York, NY: Simon and Schuster.
24. Adams, Day, & Dougherty. 1998, September. "Enhancing New Product Development Performance: An Organizational Learning Perspective" Journal of Product Innovation Management. *15(5), 403–422.* doi:10.1111/1540-5885.1550403
25. Lin, H. (2007). *Knowledge sharing and firm innovation capability: an empirical study. International Journal of Manpower, 28(3/4), 315–332.* doi:10.1108/01437720710755272
26. Aulawi, Hilmi., Govindaraju, Suryadi dan Sudirman. 2009. Hubungan Knowledge Sharing Behavior dan Individual Innovation Capability. Jurnal Teknik Industri, (Online), 11 (2): 174-187.
27. Chauhan, N., and Bontis, N., 2004. "Organisational Learning via Groupware: A Path to Discovery or Disaster?" International Journal Technology Management, Vol. 27, No. 6/7, pp. 591-610.
28. Kawalek, J. P., 2004. "Systems Thinking and Knowledge Management: Positional Assertions and Preliminary Observations." Systems Research and Behavioral Science, Vol. 21, No. 1, pp. 17-36
29. vij and farooq, 2014 Knowledge Sharing Orientation and its Relationship with Business Performance: A Structural Equation Modeling Approach The IUP Journal of Knowledge Management, Vol. XII, No. 3, July 2014, pp. 17-41
30. Knowledge sharing capability, absorptive capacity, and innovation: An empirical study of Indonesia's information and communication technology industries ,Andrawina, 2008
31. Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial marketing management*, *31*(6), 515-524.
32. Zahra, S. A., Nielsen, A. P., & Bogner, W. C. (1999). Corporate Entrepreneurship, Knowledge, and Competence Development. Entrepreneurship Theory and Practice, 23(3), 169–189. doi:10.1177/104225879902300310
33. Gunasekaran, dkk.2000' Improving Productivity and Quality in Small and Medium Enterprises: Cases and Analysis. International Small Business Journal.
34. Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of business research*, *64*(4), 408-417.
35. Chen et al., (2010). Are Family Firms More Tax Aggressive Than Non-Family Firms?Journal of Financial Economics, 41-61.
36. Kotler, P. 2007. Prinsip-prinsip Pemasaran. Erlangga, Jakarta.
37. Nasution,M.N. 2005. Total Quality Management. PT.Gramedia Pustaka Utama, Jakarta.
38. Gumusluoğlu, L., & Ilsev, A. (2009). Transformational leadership and organizational innovation: The roles of internal and external support for innovation. *Journal of Product Innovation Management*, *26*(3), 264-277.
39. Xue, Yaijong. John Bradley. Hulgang Liang. 2011. Team Climate, Empowering Leadership, and Knowledge Sharing. Journal of Knowledge Management. Vol.15 No. 2 pp. 299-312.
40. McInerney, C. R., & Day, R. E. (2007). *Rethinking knowledge management*. New York: Springer.
41. Hogel, M.; Parboteeah, K.P.; & Munson, C.L. 2003. Team-level antecedents of individual knowledge networks. Decision Sciences, Vol 34, Vol. 4, pp. 741-770.
42. Kang, Y., Kim, S. & Chang, G., 2008. The impact of knowledge sharing on work performance: an empirical analysis of the public employees' perceptions in South Korea. International Journal of Public Administration, 31(14), pp. 1548-1568.
43. Keszey, T. (2018). Boundary spanners' knowledge sharing for innovation success in turbulent times. *Journal of Knowledge Management*.

44. Setiarso, B. (2007). Tools for knowledge sharing phases among knowledge society: A case study on Indonesia institute of sciences (LIPI).
45. Harry Setiawan, Bintoro Bagus Purmono., 2014. The Effect of Design Management Capability on Product Innovation for SMEs in Indonesia
46. Hair, J. F., Anderson, R. E., Tatham, R. L., dan Black, W. C. (2014). Multivariate data analysis (6th ed.). New Jersey: Prentice-Hall International, Inc
47. Hair,J.F.et al. 2010. Multivariate Data Analysis, 7th ed., Prentice-Hall. Englewood Cliffs, NJ.
48. Nodari, F., Oliveira, M & Maçada, A. C. G. 2016. Organizational Performance through the Donation and Collection of Interorganizational Knowledge. VINE Journal of Information and Knowledge Management Systems. 46 (1): 85-103.
49. Al-Ansari, Y., Pervan, S., & Xu, J. (2013). Innovation and business performance of SMEs: the case of Dubai. *Education, Business and Society: Contemporary Middle Eastern Issues*.
50. Tobing, P. L. 2007. Knowledge Management; Konsep, Arsitektur dan Implementasi, Graha Ilmu, Yogyakarta.
51. Dodi Jayen Suwarno, Anita Silvianita,2017. Knowledge Sharing Dan Inovasi Pada Industri Startup (Studi pada 15 Perusahaan Startup di Program Indigo Incubator, Bandung Digital Valley) Jurnal Ecodemica, Vol. 1 No. 1 April 2017
52. Alliyah,2019, Pengaruh Knowledge Sharing terhadap Kinerja Bisnis Melalui Inovasi. Research Fair Unisri 2019 P- ISSN: 2550-0171 Vol 3, Number 1, Januari 2019 E- ISSN: 2580-5819
53. Wijk, R. Van, Jansen, J., & Lyles, M. (2017). Social Capital, Knowledge Transfer and Performance: Meta-Analitic Evidence. Academy of Management Annual Meeting, 1–6. https://doi.org/https://doi.org/10.5465/ambpp.2008.33663961
54. Artz, K. W., Norman, P. M., Hatfield, D. E., & Cardinal, L. B. (2010). A Longitudinal Study of the Impact of R&D, Patents, and Product Innovation on Firm Performance. Journal of Product Innovation Management, 27, 725–740. https://doi.org/doi:10.1111/j.1540- 5885.2010.00747.x
55. Miller, R. dan Floricel, S. (2004), "Penciptaan nilai dan permainan inovasi",Riset-Teknologi Pengelolaan,Jil. 47 No.6, hal.25-37.