

An International Journal



Indonesian Journal of Economics,
Business, Accounting, and Management



E-ISSN: 2988-0211 | Vol. 03, No. 04, 2025, pp. 59-72

Journal Homepage: <https://journal.seb.co.id/ijebam/index>

Innovation Barriers, Implementation Open Innovation , And Its Implications On the Performance of Small and Medium Enterprises in Indonesia

Jumi Apriza

Departement of Mangement, Faculty of Bisnis and Ekonomika, Universitas Islam Indonesia

*Corresponding author, E-mail: 18911071@students.uii.ac.id

ARTICLE INFORMATION	ABSTRACT
<i>Section</i> Research Results Articles	Small and Medium Enterprises (SMEs) play a role important in economy national Because capable adapt with change and create field work . However , SMEs often face various obstacle in innovate . Research This aim analyze influence obstacle innovation to implementation innovation open as well as the implications to performance SME innovation in Indonesia. Obstacles innovation shared become four group , namely market and institutional barriers , finance , behavior employees and organizations , as well as knowledge and work same . Research results show that market and institutional barriers as well as obstacle behavior employees and organizations influential positive to innovation open , whereas obstacle finance as well as obstacle knowledge and work The same No influential significant . In addition , innovation open influential positive to performance SME innovation . Findings This confirm that innovation open become an important strategy for SMEs to increase Power competition in environment dynamic business .
<i>History of Article</i> Submitted:05/04/2025 Accepted: 25/04/2025 Available online: 30/04/2025	
<i>Keywords</i> Barriers , Open Innovation , Innovation Performance , Small and Medium Enterprises (SMEs), Competitiveness	

©Year PT Solusi Edukasi Berdikari: Publishers. All Rights Reserved

INTRODUCTION

UKM has sufficient role big in economy a country. Compared with company big , more SMEs can adapt to changes that occur in the environment business moment this . So that appropriate for SMEs to produce new discoveries and ideas (Bianchi et al., 2010) . According



to the Central Statistics Agency (BPS) , The number of Micro, Small and Medium Enterprises (MSMEs) reached 64 million , where every his business own amount minimum one employee even more operating in Indonesia. Therefore , that , the existence of SMEs plays a role important as driving force entrepreneurship and development economy (www.bps.go.id).

Innovation play a role important in growth company and in control competition . Innovation demonstrates the ability to build something new (Fagerberg & Mowery, 2006) . According to (Hult et al., 2004) , innovation is the result of activities to change and/or create a new discovery related to the process of creating or products made using more creative ideas for the company. The company's main goal in continuing to encourage innovation is to improve company performance. With innovation, the company will continue to exist and make improvements in the production process, thus providing a positive impact on the company in order to be able to compete with other companies (Cheng et al., 2014) .

The company does not only focused on creating products and services innovative new only , will but For still Keep going competitive , companies must also be Keep going innovate on business models they For overcome environment business that always changed (Laloux, 2015) . Many SMEs rely on their ability to innovate to achieve and maintain competitive advantage. However, the success rate of these innovative efforts tends to be much lower than desired. Only a small proportion of SMEs have the capacity and opportunity to actively and successfully engage in innovation due to the high risk of innovation activities, limited financial resources, a lack of a multidisciplinary competency base, and a tendency to use less structured innovation approaches. These factors can limit their ability to innovate and achieve competitiveness (Parida et al., 2012) .

In the Indonesian context , when This studies about innovation Already Lots done , but topic study about innovation open Still A little done , especially research that links constraint innovation and innovation open in SME context . So , not yet there is accurate understanding about How role innovation open helping SMEs in Indonesia in overcome constraint innovation as well as its influence to performance innovation in SMEs.

Study innovation open in Indonesian context only focused on implementation and impact to performance company . Like research conducted by researchers influence approach innovation open to performance innovation companies in Indonesia. (Buwana & Nursyamsiah, 2018) research implementation innovation open to performance SME companies . And (Hermawan, 2019) research connection between innovation open , use system management and performance company pharmacy in Indonesia.

Although study about innovation open and constraints innovation has done in Indonesia, but study the company - focused big . Like research conducted by (Hartono et al., 2018) about obstacle innovation to Indonesian companies for adopt innovation open . This study highlight How company Indonesian manufacturing gets knowledge external in a way wide and deep as response to obstacle different innovations . Research This using data from survey Indonesian innovation in 2011. Based on study the that constraint innovation and implementation innovation open investigated only covers activity innovation at the company big just whereas in the context of SMEs is still has not been explored . Therefore That study This aim For complete *research gap* theme study about constraint innovation , innovation open , and its implications to performance innovation in SMEs in Indonesia that has not yet been Once investigated previously .

Results of research conducted by (Hartono et al., 2018) show that constraint innovation can shared become four group namely (1) Markets and Institutions , (2) Behavior Employees

and Organization , (3) Finance , and finally (4) Knowledge and Work the same . The study show that only related constraints with behavior employees and organizations that are positive and significant influence its area openness company in innovation . On the other hand , obstacles knowledge and cooperation impact negative and significant towards him its extent . While two obstacles other namely markets and institutions and finance No own significant relationship towards him its area openness in innovation . Other research (Hartono et al., 2018) also divides obstacle innovation become four similar groups like with using the same data that is survey Indonesian innovation in 2011 .

Related barriers with markets and institutions relate with environment external (Hadjimanolis, 1999) . According to (Madrid-Guijarro et al., 2009) obstacle environment external is obstacle the environment outside companies that have a number of influence like case in point global competition , policy government and uncertainty economy . Obstacles source Power finance is obstacles concerning availability internal finance and finance external as well as cost innovation (*Barriers to Innovation in Indian Small and Medium-Sized Enterprises* , 2016) . Obstacle Behavior Employees and Organizations is something that can obstruct progress or achievement something related matters with characteristic man like resistance employee to innovation and rigidity organization (Zwick, 2002) . Barriers knowledge and cooperation is something that can obstruct progress or achievement something things that include lack of qualified personnel , information about technology and markets as well activity cooperation . Obstacles This relate with source Power company . Usually the idea of innovation created from thought somebody Then set it up with Collaboration (Claver et al., 1998) . In terms of innovation internal barriers to innovation is factors that can endanger Power competition company (Talegeta , 2014).

Ability For identify obstacles / barriers means as business For building ' awareness' company about the difficulties involved as consequence from involvement in activity innovation ' (D'Este *et al.*, 2012). Therefore That For reach success innovation in the company is very important For identify obstacles faced during the innovation process Because can give knowledge important for taker decision company in overcome obstacle said (D'Este *et al.*, 2012).

LITERATURE REVIEW & DEVELOPMENT HYPOTHESIS

Open Innovation

put forward by (Chesbrough, 2003) has happened shift paradigm from paradigm innovation closed to paradigm innovation open . In the innovation model closed company produce innovation only with use source internal power and technology owned by the company said , starting from create ideas, create , develop as well as market it (Van de Vrande *et al.* , 2009). Innovation closed Still practiced by some company Because belief That Can profitable in a way strategic For keep internal ideas and technology from others, even when ideas and technology the No used by companies . On the other hand , in the innovation model open company can utilize external and internal ideas to discover and develop innovation new (Chesbrough, 2003) .

Indicator Open Innovation

In this study, we will use the open innovation indicator, namely *External Search Breadth* (ESB). and *External search depth* (ESD). *Breadth* measures the level of openness in terms of the number of external parties involved in the innovation process, while *depth* measures the extent to which specific external sources are used during the innovation process, this measurement refers to the importance of external parties (Bahemia & Squire, 2010).

(Laursen & Salter, 2006) develop two measurements innovation open the as a search strategy external company . With involving *external search breadth* (use vastness or various source information external) and *external search depth* (importance source information external views from depth / intensity use information) from the innovation process the .

Service Quality Dimensions

UKM has different terms and definitions every his country due to difference economy every country. Therefore That difficult For formulate definition universally (Scheers, 2011). In Indonesia itself the definition of UKM is still diverse . According to Ministry Cooperatives and Small and Medium Enterprises stated that which is meant business small and medium enterprises micro is businesses that have assets under Rp. 200,000,000. These assets outside from ownership place business consisting of from buildings and land , as well as get results sale annual maximum amounting to Rp. 1,000,000,000. Meanwhile , the business medium is businesses that have the above assets from Rp. 200,000,000 to Rp. 10,000,000,000, these assets outside from ownership land and buildings place business (Resalawati , 2011).

Whereas According to the Central Statistics Agency (BPS), the definition of SMEs is based on the use of amount power work , which amount power work on business small have 5 to with 19 people, while amount power work on business medium have 20 to with 99 people. In the study This will follow The definition of UKM put forward by BPS is UKM which is based on the use of amount power work . SMEs in Indonesia play a role important in growth social and economic , because many industry , GDP contribution , and number of field work . Compared with company big , more SMEs can adapt to changes that occur in the environment business moment this . So that appropriate for SMEs to produce new discoveries and ideas (Bianchi et al., 2010) . According to the Central Statistics Agency (BPS), the number of Micro, Small and Medium Enterprises (MSMEs) reached 64 million , of which every his business own amount minimum one employee even more operating in Indonesia. Therefore , that , the existence of SMEs plays a role important as driving force entrepreneurship and development economy (www.bps.go.id).

Obstacles or Obstacle Innovate

In a way general , obstacles innovation covering risk economy , costs , constraints financing , behavior organization , lack of skilled personnel , lack of information about technology and markets, and lack thereof response customer to innovation , institutions , and so on (Galia & Legros, 2004). Inhibitory factors innovation called as obstacles that hinder the innovation process something companies that influence performance innovation . Obstacles This can grouped become internal or endogenous barriers (usually related with difficulty in carry out internal changes in organizational processes they) and obstacles external or exogenous (arising) when company get source Power or knowledge in a way external) (Hadjimanolis, 1999) .

Obstacle Innovation and Implementation Open Innovation

(Hartono et al., 2018) do research in Indonesia regarding obstacle innovation on innovation open and company - focused manufacturing scale medium and large . Research the grouping constraint innovation to in four group namely markets and institutions , finance , behavior employees and organizations , as well as knowledge and cooperation . The result from four group innovation the only obstacle related with behavior employees and organizations that are positive and significant influence openness company in innovation .

Market and Institutional Barriers

According to (Madrid-Guijarro et al., 2009) obstacle environment external is obstacle the environment outside companies that have a number of influence like case in point global competition, policy government and uncertainty economics. Case studies conducted by (Fu et al., (2014) stated that environmental innovation pressure drives open innovation in China. Market and institutional barriers show positive and significant results on innovation openness. Other studies also conducted by (Katila & Ahuja, 2002) and (Frishammar & Horte (2005) found a positive relationship between external economic uncertainty and the level of innovation. This is reinforced by research by Galia & Legros (2004) that the lack of information about the external environment can be a barrier that is difficult for SMEs to avoid, but by doing so they will be able to implement the innovation process effectively.

Obstacle Finance

Obstacle source Power finance is obstacles concerning availability internal finance and finance external as well as cost innovation (*Barriers to Innovation in Indian Small and Medium-Sized Enterprises*, 2016). Economic factors are very important and have an impact to innovation related with lack of internal and external funding, as well as cost more funding high and risk more finances large (Frankel, 2003). According to research conducted (Madrid-Guijarro et al., 2009) that related obstacles with lack of source Power finance, position weak finances and risks tall can considered as too much of a challenge big For overcome and can limit activity innovation company.

Obstacle Behavior Employees and Organizations

Obstacle Behavior Employees and Organizations is something that can obstruct progress or achievement something related matters with characteristic man like resistance employee to innovation and rigidity organization. Some study has emphasize role resistance employee to innovation based on problem like poor communication, existing company norms, practices source Power humans are weak and lacking commitment from management (Zwick, 2002). Consequences from culture organizations that do not accept innovation allows occurrence risk failure For use approach new For chase market opportunities (Roper & Hofmann, 1993).

Obstacle Knowledge and Cooperation

Obstacle Knowledge and Collaboration are something that can obstruct progress or achievement something things that include lack of qualified personnel, information about technology and markets as well activity cooperation. Obstacles This relate with source Power company. In case innovation, internal barriers to innovation is factors that can endanger Power competition company (Talegeta, 2014). In general wide has recognized that knowledge assets are very important For development company, in context this is what plays a role is man No technology, usually innovative ideas created from thought someone and with arrange cooperation (Claver et al., 1998).

Open Innovation and SME Innovation Performance

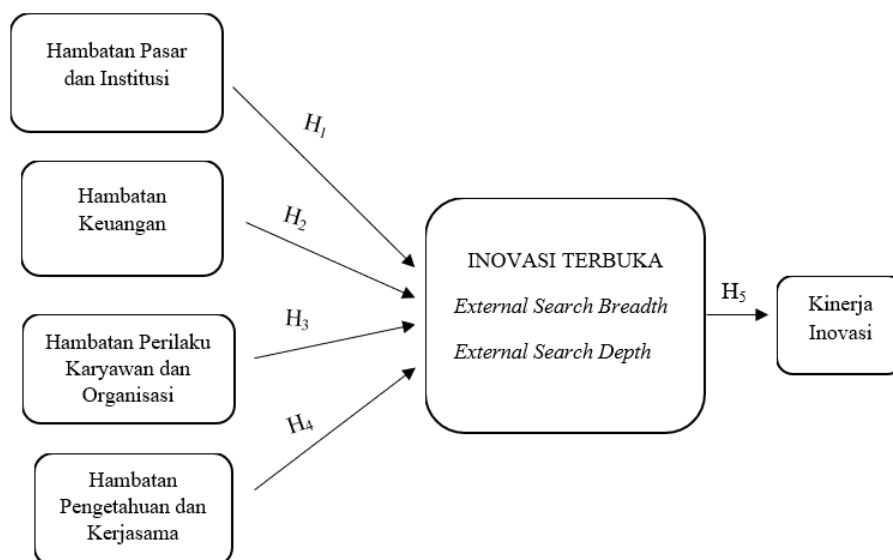
According to innovation is factor important in formation optimal performance. With performance good innovation so will creation competitive advantage. According to (Ebersberger & Herstad, 2013), performance innovation is results from sale product new or products that have been updated in a way significant. Innovation can differentiated into 2 (two) categories that is innovation radical and innovative incremental. Innovation radical is something new and unheard of innovations Once There is previously in A company. Meanwhile incremental innovation is something innovation which is doing changes that are

not significant However own level novelty . This aim For do adjustment to desire customer in fulfil market products (Kozinets et al., 2010) .

RESEARCH METHODS

Population in study This is all SMEs in Indonesia that carry out innovation in operate business . Samples were taken use multi-stage random sampling technique , namely election sample in a way gradual and random based on criteria companies facing obstacle innovation such as markets, finance , behavior organization , as well as use source knowledge external .

Study This nature quantitative with using secondary data obtained from Survey Indonesian Innovation 2014 by PAPPIPTEK LIPI, which is survey final related activity innovation companies in Indonesia. Data collected through questionnaire completed by the manager or SME leaders , referring to the Oslo Manual (OECD/Eurostat, 2005) as guide survey innovation international . The measurement scale used is binary scale (yes / no) and ordinal scale , accordingly with need quantitative data analysis .



Source : Adopted from Hartono (2018); Hartono & Kusumawardhani (2018)

Information picture :

H₁ : SMEs that experience obstacle related to markets and institutions influential positive to implementation innovation open .

H₂ : SMEs that experience obstacle finance influential positive to implementation innovation open .

H₃ : SMEs that experience obstacle behavior employees and organizations influential positive to implementation innovation open .

H₄ : SMEs that experience obstacle knowledge and cooperation influential positive to implementation innovation open .

H₅ : Innovation open influential positive to performance SME innovation .

DATA ANALYSIS RESULTS & DISCUSSION

Study This aim For know influence obstacles experienced by SMEs during the innovation process Good obstacle related to markets and institutions , obstacles financial , obstacles behavior employees and organizations as well as obstacle knowledge and cooperation to adoption innovation open (in a wide and depth) and know influence innovation open to performance SME innovation .

Data used is secondary data namely the data obtained from results Survey Indonesian Innovation in 2014. Survey the conducted by the Research Center Development Knowledge Science and Technology (PAPPIPTEK) LIPI. A total of 833 samples obtained in study this is what is included in 564 small companies or 67.7% and companies Intermediate as many as 269 companies or 32.3%. Distribution results sample shown in Table 1.

Table 1 Results of Distribution of SME Samples

Size company	Amount	Percentage
Small (Lower Than 20 Employees)	564	67.7%
Medium (20-99 Employees)	269	32.3%
Total	833	100%

Source : Secondary data processed , 2021

Validity Test

Analysis techniques used in study This is *product moment correlation* . Where the calculation process is carried out using the SPSS program with level significance of 5%. For test significance the done with method compare calculated r value with r table , or r count > r table . Here results validity test calculations in Table 2 below This ;

Table 2 Validity Test Results

Variables	Item	Coefficient Correlation	r table	Information
obstacle related to markets and institutions	Demand_Uncertain	0.742	0.068	Valid
	Customer Acceptance	0.756	0.068	Valid
	Infrastructure	0.795	0.068	Valid
	Industry Standard	0.82	0.068	Valid
	Gov_Regulation	0.841	0.068	Valid
Hambatan Keuangan	In_Fund	0.818	0.068	Valid
	Ex_Funding	0.757	0.068	Valid
	High_Inncost	0.833	0.068	Valid
	High_Risk	0.776	0.068	Valid
obstacle behavior employees and organizations	Staff_Resist	0.808	0.068	Valid
	Mgr_Resist	0.866	0.068	Valid

obstacle knowledge and cooperation	Org_Rigid	0.832	0.068	Valid
	Personnel_Qual	0.781	0.068	Valid
	It_Info	0.815	0.068	Valid
	Market_Info	0.809	0.068	Valid
	Cooperation	0.771	0.068	Valid
	Labor Allocation	0.774	0.068	Valid

Source : Secondary Data processed , 2021

Reliability Test

A variables can is said to be reliable if mark *Cronbach Alpha* is more big from 0.6 then can interpreted that answer from the respondents on questionnaire as tool gauge considered reliable. If mark *Cronbach's Alpha* is more small from 0.7 then can interpreted that answer from the respondents in the questionnaire as tool gauge stated unreliable (Ghozali , 2009). The following results calculation from the reliability test in Table 4.6 below This :

Test results reliability

Variables	Alpha Crobach	Critical value	Information
Obstacle related to markets and institutions	0.918	0.7	Reliable
Obstacle Finance	0.910	0.7	Reliable
Obstacle behavior employees and organizations	0.918	0.7	Reliable
Obstacle knowledge and cooperation	0.918	0.6	Reliable

Source : Secondary Data processed , 2021

Goodness of Fit Test (Model Accuracy Test)

Based on results testing these indicators *goodness of fit* in a way general show that the measurement model used can accepted . Here are each of the tests *goodness of fit* in the research model .

Table 4 Measurement Model – Goodness of fit

Goodness of fit	Cut-off Value	Wide	Depth	Information
X ² – Chi Square	It is expected its value small (9,488)	19,330	14,904	
Probability	≥ 0.05	0.001	0.005	Not good
Cmin/DF	≤ 2	4,833	3,726	Not good
GFI	≥ 0,90	0,992	0,994	Baik
RMSEA	≤ 0,08	0,068	0,057	Baik
AGFI	≥ 0,90	0,960	0,969	Baik
TLI	≥ 0,90	0,981	0,986	Baik
CFI	> 0,90	0,995	0,996	Baik

² Value – Chi Square with level significance $p < 0.05$. This show that H_0 states No there is difference between matrix covariance sample with matrix covariance estimated population rejected . This means matrix covariance sample with matrix covariance estimated population is No the same , and stated the model No Good .

Based on analysis to *goodness of fit* – GFI reflects level model suitability Overall . The recommended acceptance level of $GFI > 0.90$. The results show The GFI values of the two models were $0.992 > 0.9$ and $0.994 > 0.9$, respectively , so the model had a good fit . The results of the study show The AGFI values are 0.960 and 0.969 respectively, which are more from recommended AGFI value > 0.9 , so that show that this model have a good fit .

Tucker Lewis Index – TLI is alternative *incremental fit index* that compares the models being tested with *baseline* . In TLI the recommended value as level good fit is ≥ 0.90 . Research results show that TLI values are 0.981 and 0.986 respectively so that can stated that level suitability is in good criteria . *Comparative Fit Index* – CFI, is an incremental fit index that compares the model tested with the null model. The recommended value of $CFI \geq 0.90$. While results the respective tests were 0.995 and 0.996, indicating that the model is Good

The minimum Sample Discrepancy Function – CMIN/DF is index measuring parsimonious conformity connection *goodness of fit* model and number expected estimated coefficients For reach level conformity . The overall CMIN/DF results more big from recommended value $CMIN/DF < 2.0$, indicates a poor model fit Good .

The Root Mean Square Error of Approximation – RMSEA, the index used For Compensating Chi Square Statistics in large sample . The RMSEA value shows *goodness of fit* that can expected when the model is estimated in population . Recommended acceptance values ≤ 0.08 , while results the respective tests were 0.068 and 0.057, indicating that the model is good. From analysis the suitability of the model show that majority of test parameters has fulfil goodness of fit criteria .

Testing Hypothesis

Testing hypothesis with SEM analysis obtained results track as following :

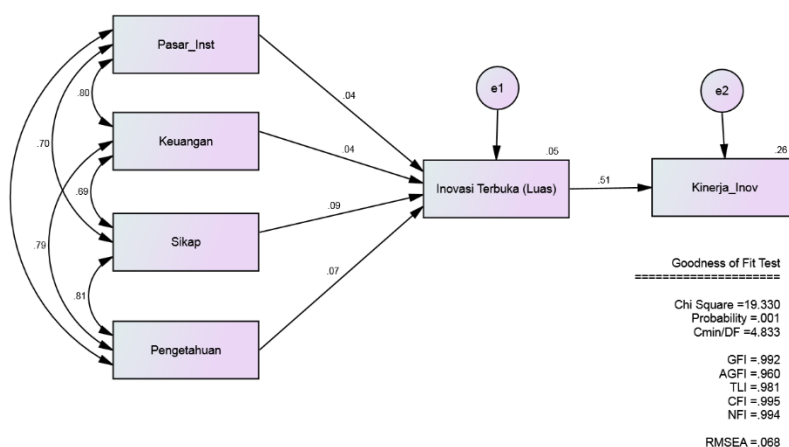


figure 1. Results of Testing the Open Innovation Model (Broad)

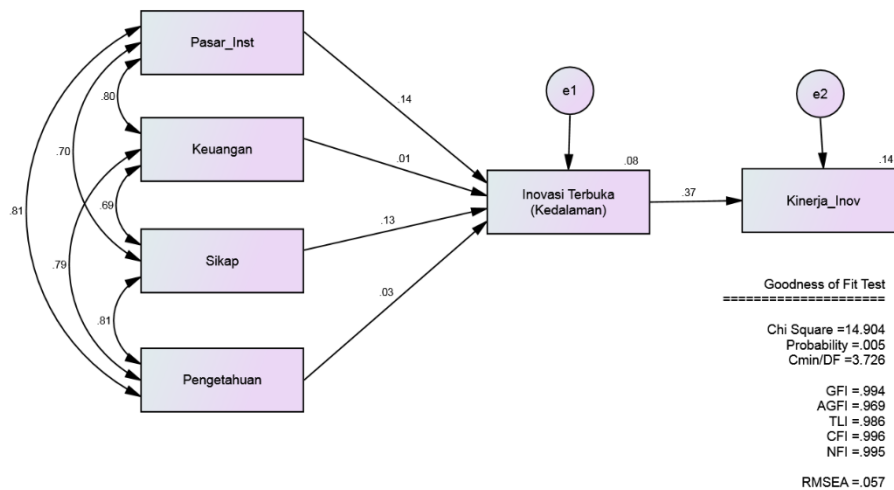


Figure 2. Results of Open Innovation Model Testing (Depth)

Based on from information picture above , can explained results testing hypothesis First until hypothesis fifth . While estimate results SEM analysis can shown in the table following :

Table 5 Estimated Results of SEM Analysis

Relationship between variables	Wide	Depth	Innovation Performance
Markets and institutions →Open Innovation	0.039 (0.547)	0.139 (**)	
Finance →Open Innovation	0.043 (0.492)	0.008 (0.898)	
Behavior employees and organizations →Open Innovation	0.090 (0.119)	0.132(**)	
Open Innovation knowledge and collaboration→	0.070 (0.340)	0.033 (0.651)	
Innovation Performance Scope→			0.509(***)
Depth →Innovation Performance			0.372(***)

Source : Secondary data processed , 2021

Testing Hypothesis Alternative First

Test results on market and institutional barrier variables path coefficients obtained (*Standardized*) of 0.039 and probability (p-value) of $0.547 > 0.05$ to wide innovation open . Whereas influence market and institutional barriers to depth innovation open path coefficients obtained (*Standardized*) of 0.139 and probability (p-value) of $0.029 < 0.05$. The results show that H_0 is rejected so that can stated that there is a significant influence of obstacles related to markets and institutions towards innovation open . The positive coefficient result (0.139) indicates that the better obstacle related to markets and institutions so adoption innovation open increasing, and conversely the lower the market and institutional barriers will lower innovation open . This is means the first hypothesis states that " H_1 : SMEs that experience obstacle related to markets and institutions influential in adopt innovation open ", can supported .

Testing Hypothesis Alternative Second

Test results on resistance variables finance path coefficients obtained (*Standardized*) of 0.043 and probability (sig) of $0.492 > 0.05$ to its area innovation open . The results are supported by the influence of obstacle finance to known depth path coefficient (*Standardized*) of 0.008 and probability (sig) of $0.898 > 0.05$. The results are show that H_0 accepted so that

can stated that No there is a significant influence of obstacles finance to innovation open . This is means second hypothesis which states that " H_2 : SMEs that experience obstacle related finance influential in adopt innovation open ", rejected .

Testing Hypothesis Alternative Third

Test results on resistance variables behavior employees and organizations path coefficients obtained (*Standardized*) of 0.090 and probability (sig-t) of $0.119 > 0.05$ to wide innovation open . Whereas influence obstacle behavior employees and organizations to depth path coefficients obtained (*Standardized*) of 0.132 and probability (sig-t) of $0.020 < 0.05$. These results show that H_0 was rejected so that can stated that there is a significant influence of obstacles behavior employees and organizations towards innovation open . The positive coefficient results (0.132) indicate that the higher the barriers to employee and organizational behavior , the the more high SMEs in adopt innovation open . This matter means the third hypothesis states that " H_3 : SMEs that experience obstacle related behavior employees and organizations influential in adopt innovation open ", can supported .

Testing Hypothesis Fourth Alternative

Test results on resistance variables knowledge and cooperation path coefficients obtained (*Standardized*) of 0.070 and probability (sig-t) of $0.340 > 0.05$ to wide innovation open . The results are supported by the influence of obstacle knowledge and cooperation to depth path coefficient obtained (*Standardized*) of 0.033 and probability (sig-t) of $0.651 > 0.05$. These results indicate that H_0 accepted so that can stated that No there is a significant influence of obstacles knowledge and cooperation towards adoption innovation open . This is means fourth hypothesis which states that " H_4 : SMEs that experience obstacle related Knowledge and Collaboration matter in adopt innovation open ", rejected .

Testing Hypothesis Alternative Fifth

Test results on the area variable innovation open to performance innovation path coefficients obtained (*Standardized*) is 0.509 and probability (sig-t) is $0.000 < 0.05$ which means there is influence in a way significant . The results are supported by the influence of depth to performance innovation obtained path coefficient (*Standardized*) is 0.372 and probability (sig-t) is $0.000 < 0.05$ which means depth innovation open influential significant to performance innovation . The results show that H_0 is rejected so that can stated that there is a significant influence of innovation open and towards performance innovation . Positive coefficient results indicate that the higher the innovation open so the more tall performance innovation in SMEs. This matter means fifth hypothesis which states that " H_5 : Innovation open influential positive to performance "SME innovation " can supported .

RESULT AND DISCUSSION

Study This find that market and institutional barriers influential positive and significant to innovation open , especially in the aspect depth . This means that the more big pressure external like uncertainty economy , policy government , and global competition , increasingly encourage SMEs to innovate to stay competitive . This is in line with Miller's theory (1987) that dynamic environment trigger company For more innovative .

On the contrary , the obstacles finance No influential significant to innovation open . SMEs tend to overcome limited funds with look for support from institution finance external than increase collaboration innovative . findings This support study (Hartono et al., 2018) and Pachouri & Sharma (2014) who emphasized that constraint cost still become obstacle main SME innovation .

Temporary that , the obstacle behavior employees and organizations precisely show influence positive and significant to innovation open . Obstacles like resistance to changes and lack of skills encourage SMEs to adapt and strengthen commitment in apply innovation . Findings This support draft *revealed barriers* , namely obstacles that actually become opportunity learning for organization .

As for the obstacles knowledge and work The same No influential significant to innovation open . Low quality source Power human , limitations information technology , and its weaknesses collaboration become factor inhibitor main . This result in line with study (Hartono et al., 2018) which states that obstacle knowledge precisely impact negative to innovation open .

Lastly , research prove that innovation open , good from aspect vastness and depth , influential positive and significant to performance SME innovation . More SMEs open to collaboration external capable increase ability innovative and powerful competition . This result consistent with study (Hassan et al., 2018) , (Crema et al., 2014) , and (Popa et al., 2017) which shows that innovation open play a role important in increase performance and success of SMEs in various countries.

CONCLUSION

Research conclusion This show that obstacle innovation own influence different to implementation innovation open and performance SME innovation . Market and institutional barriers , as well as behavior employees and organizations proven encourage SMEs to more adopt innovation open , especially in the aspect of depth . On the other hand , the obstacle finance as well as obstacle knowledge and work The same No influential significant to innovation open . In addition , innovation open , good from side vastness and depth , influential positive to performance SME innovation in Indonesia. With thus , the more tall level adoption innovation open , more and more good performance too SME innovation .

REFERENCE

- Barriers to Innovation in Indian Small and Medium-Sized Enterprises* (Issue 588). (2016). <https://www.adb.org/publications/barriers-innovation-indian-small-and-medium-sized-enterprises>
- Bianchi, M., Campodall'Orto, S., Frattini, F., & Vercesi, P. (2010). Enabling open innovation in small- and medium-sized enterprises: how to find alternative applications for your technologies. *R&D Management*, 40(4), 414–431. <https://doi.org/10.1111/J.1467-9310.2010.00613.X>
- Buwana, MAL, & Nursyamsiah, S. (2018). Analysis of Open Innovation Implementation: The Role of External Collaboration on Product Innovation and Company Performance (Empirical Study on Batik Small and Medium Enterprises (SMEs) in Yogyakarta). *Indonesian Journal of Management and Business* , 6 (1), 45–64. <https://doi.org/10.31843/JMBI.V6I1.182>
- Cheng, C. C. J., Yang, C. L., & Sheu, C. (2014). The link between eco-innovation and business performance: a Taiwanese industrial context. *Journal of Cleaner Production* , 64 , 81–90. <https://doi.org/10.1016/J.JCLEPRO.2013.09.050>
- Chesbrough, H. (2003). *Open Innovation: The New Imperative for Creating and Profiting from Technology* .

- Claver, E., Llopis, J., Garcia, D., & Molina, H. (1998). Organizational culture for innovation and new technological behavior. *The Journal of High Technology Management Research*, 9(1), 55–68. [https://doi.org/10.1016/1047-8310\(88\)90005-3](https://doi.org/10.1016/1047-8310(88)90005-3)
- Crema, M., Verbano, C., & Venturini, K. (2014). Linking strategy with open innovation and performance in SMEs. *Measuring Business Excellence*, 18(2), 14–27. <https://doi.org/10.1108/MBE-07-2013-0042>
- Ebersberger, B., & Herstad, S. J. (2013). The relationship between international innovation collaboration, intramural R&D and SMEs' innovation performance: a quantile regression approach. *Applied Economics Letters*, 20(7), 626–630. <https://doi.org/10.1080/13504851.2012.724158>
- Fagerberg, J., & Mowery, D. C. (2006). The Oxford Handbook of Innovation. *The Oxford Handbook of Innovation*, 1–680. <https://doi.org/10.1093/OXFORDHB/9780199286805.001.0001>
- Hadjimanolis, A. (1999). Barriers to innovation for SMEs in a small less developed country (Cyprus). *Technovation*, 19(9), 561–570. [https://doi.org/10.1016/S0166-4972\(99\)00034-6](https://doi.org/10.1016/S0166-4972(99)00034-6)
- Hartono, A., Hartono, A., & Kusumawardhani, R. (2018). SEARCHING WIDELY OR DEEPLY? THE IMPACT OF OPEN INNOVATION ON INNOVATION AND INNOVATION PERFORMANCE AMONG INDONESIAN MANUFACTURING FIRMS. *Journal of Indonesian Economy and Business (JIEB)*, 33(2), 123–142. <https://doi.org/10.22146/jieb.29218>
- Hassan, M. U., Iqbal, Z., Malik, M., & Ahmad, M. I. (2018). Exploring the role of technological developments and open innovation in the survival of SMEs: an empirical study of Pakistan. *International Journal of Business Forecasting and Marketing Intelligence*, 4(1), 64. <https://doi.org/10.1504/IJBFMI.2018.088629>
- Hermawan, CF (1551109). (2019). *The Relationship Between Open Innovation, Use of Management Control Systems and Company Performance (a study of Pharmaceutical Companies in Java)*.
- Hult, G. T. M., Hurley, R. F., & Knight, G. A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, 33 (5), 429–438. <https://doi.org/10.1016/J.INDMARMAN.2003.08.015>
- Katila, R., & Ahuja, G. (2002). Something old, something new: A longitudinal study of search behavior and new product introduction. *Academy of Management Journal*, 45 (6), 1183–1194. <https://doi.org/10.2307/3069433>
- Kozinets, R. V., De Valck, K., Wojnicki, A. C., & Wilner, S. J. S. (2010). Networked narratives: Understanding word-of-mouth marketing in online communities. *Journal of Marketing*, 74(2), 71–89. <https://doi.org/10.1509/jmkg.74.2.71>
- Laloux, F. (2015). The Future of Management Is Teal. *Strategy+Business*, 80, 1–22. https://books.google.com/books/about/The_Future_of_Management.html?id=WxUkuJj0CK4C
- Laursen, K., & Salter, A. (2006). Open for innovation: The role of openness in explaining innovation performance among U.K. manufacturing firms. *Strategic Management*

Journal, 27(2), 131–150. <https://doi.org/10.1002/SMJ.507>

Madrid-Guijarro, A., Garcia, D., & Van Auken, H. (2009). Barriers to Innovation among Spanish Manufacturing SMEs. *Journal of Small Business Management*, 47(4), 465–488. <https://doi.org/10.1111/J.1540-627X.2009.00279.X>

Parida, V., Westerberg, M., & Frishammar, J. (2012). Inbound Open Innovation Activities in High-Tech SMEs: The Impact on Innovation Performance. *Journal of Small Business Management*, 50(2), 283–309. <https://doi.org/10.1111/J.1540-627X.2012.00354.X>

Popa, S., Soto-Acosta, P., & Martinez-Conesa, I. (2017). Antecedents, moderators, and outcomes of innovation climate and open innovation: An empirical study in SMEs. *Technological Forecasting and Social Change*, 118, 134–142. <https://doi.org/10.1016/J.TECHFORE.2017.02.014>

Zwick, T. (2002). Employee resistance against innovations. *International Journal of Manpower*, 23(6). <https://doi.org/10.1108/01437720210446397>