



Research Article

THE IMPACT OF OPPORTUNITY AND CHALLENGE TO OPEN INNOVATIVE STRATEGY THAT CAN INFLUENCE BUSINESS PERFORMANCE IN SMEs

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ABSTRACT

SMEs entrepreneurs have been given challenges and opportunities to compete in the international markets. The implication of ‘open innovation’ by SMEs will be further studied by focusing on the information regarding SMEs owners’ adaptation on their businesses agenda and its effects towards their business performance. The empirical investigation is based on a sample selection of Indonesian SMEs. In the present, the opportunities and challenges components were investigated within the Indonesian SMEs Practices. The findings in this paper suggested that the challenge relationship to open innovation strategy is insignificant. Instead, the ‘challenge’ is positively related to ‘opportunity’. It is an understanding that the entrepreneur has the lower expectation to ‘challenge’ since the challenge naturally created the opportunity function over the business utility function. On the other hand, the ‘open Innovation’ is less positively at 90% confident interval related to ‘business performance’. In the situation, the entrepreneur’ decision is determined by whether their open Innovation strategies can spur their performances. The findings were the important factors that contribute to developing the “Open New Market and Customer Capability”, “Export Performance of SMEs” and “Possibility of Market Expansion Domestically” on Indonesia SMEs. This paper will use PLS to analyze the model and is limited to Indonesian SMEs.

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INTRODUCTION

Trade agreements are when two or more nations agree on the terms of trade between them. Trade agreements determine the tariffs, (taxes and duties) that both countries impose on imports and exports. Once agreements move beyond the regional level, the World Trade Organization (“WTO”) will steps in, help negotiate global trade agreements that enforce the agreement and responds to complaints[1]. There are always people who oppose and agree on the free trade agreement, which will give advantages and disadvantages together with the free trade agreements[2]. Since the ASEAN Economic Community (“AEC”) has emerged in 2017 without any boundaries, all ASEAN companies will compete with each other in a single ASEAN market. As ASEAN went from emerging to surging, Indonesia is destined to play a central role[3]. Indonesia has a pivotal market and has lion’s heart in AEC role, undeniable trends like urbanization and consumerism will absolutely bring all the eyes on us.

However, the debate around trade agreements such as RCEP, TPP, including AEC, has mostly concerns on Indonesia’s readiness to observe many and diverse standards required by

the binding agreement[4], [5]. When compared to neighboring countries such as Singapore, Malaysia, and Thailand, Indonesia is often perceived to be not very competitive in terms of infrastructure and human resources[6]. In the World Economic Forum (2016) ranking on countries performance on innovation and sophistication factors, Indonesia is ranked in number 33, 1 steps up towards rank 34 compared with the year 2015. Government spending from Gross Domestic Product is categorized low, and without further innovation, Indonesia cannot grow any further. Public spending for research and development as part of Gross Domestic Product in comparison to other ASEAN countries is relatively much lower [8].

In accordance to the World Bank data (2014-2015) as shown on the radar graph below, Indonesia’s position in term of global competitiveness index, innovations & sophistication index and technology readiness are still far from ideal compared to Singapore, Thailand and Malaysia. In term of GDP, as shown on the graph below, Indonesia always earned the biggest GDP every year (<https://data.worldbank.org/>). In 2014, Indonesia GDP was USD 889 billion, but the spending on R&D was only 8%, which is far lower compare to other ASEAN countries (<https://data.worldbank.org/>). In term of innovation that internationally recognized, Indonesia also the lowest after Malaysia, as well as the lowest human index[7].

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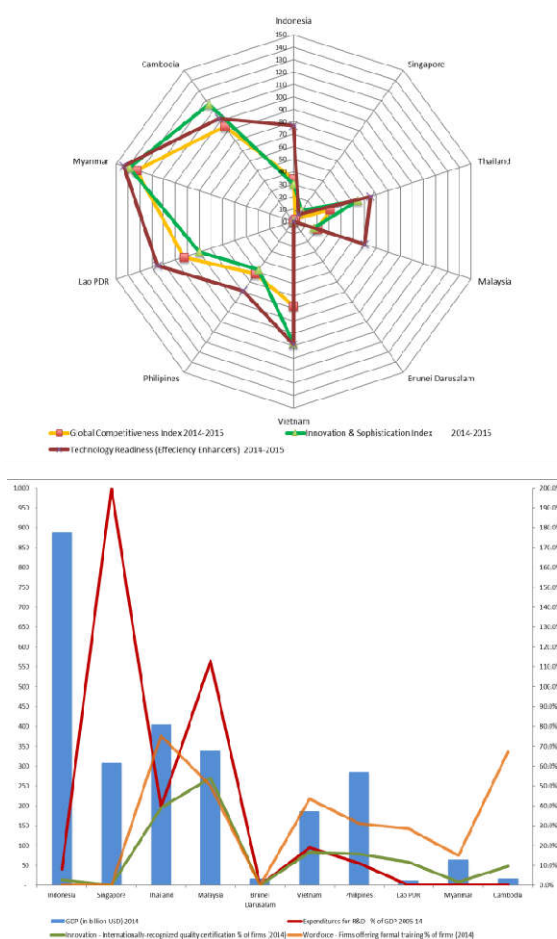


Figure 1 Indonesian Competitive Index, World bank 2015.

Pros and cons are the benefits for having access to markets of opponent countries, and potential costs may come from joining due to the increasing the competition and market regulation. Under free trade partnership, Small Medium Enterprises (“SMEs”) receive support to export their products to overseas market[9]. The trade partnership will also increase cooperation between different business sectors in many areas, such as production and supply chain, connecting the business activities, as well as channeling to the end clients[10]. At the end, it will reduce poverty and increase the development in Human Resources. Diversification in the business sectors under the free trade partnership will create huge opportunities while seeking new markets at home and abroad for domestic enterprises. The potential business sectors that are likely to get gains are information technology sectors, ecommerce and financial services that are suitable for Indonesian middle class[11].

The world is fundamentally changing, the company could make choice depending on how they view the world and more importantly is the expectation of how companies should behave and react to customer’s needs[12]. Technology has transformed how customer acts, share information and understand the world, and has given consumers power like it has never done before. In this circumstance, all companies that have unprecedented experience have to change to a new environment in which they must now work harder on it[12], [13].

Indonesian SMEs have faced similar problems as other big businesses[14]-[16]. The rigorous battling either to survive through this competition is taking count into SMEs’ day-to-

day activities. Whether they are ready or not, willing or not – they need to prepare to be able to win the war. The main motives to implement this innovation is to seize new business opportunities as well as to survive in our home country[17]. The SMEs whom recognize that innovation can benefit from competing pressures in the modern market through the modern way.

This paper will assess open innovation practices within Indonesian SMEs. The paper will also analyze whether the “Open Innovation Strategies” for SMEs in Indonesia is being affected by the cumulative effects and interrelationship between opportunities components and challenges components[18]. Whole holistic concepts on R&D practices, managerial structure, individual competencies and company’s competencies, as well as an enable to transform the knowledge management with the company’s people are also being put on the account[14]. Lastly, we hope that the impact can measure and predict “Open Innovation Capability” and “Export Performance of SMEs” and/or “Possibility of Market Expansion Domestically”[14], [19]. We hope that the findings will in line and confirm that “open innovation strategies” and their impact on the international competitiveness of SMEs are highly related to and dependent upon the cumulative effects of, and the interrelationship between, several key internal and external factors.

This paper will be limiting the research within the context of opportunities and challenges of open innovation strategies for Indonesian SMEs for providing better products and services through better processes. Therefore, the quantitative synthesis of the parameters related to opportunities aspects and challenges aspects of open innovation strategies in conjunction of sustain growth performance of Indonesian SMEs is investigated.

The benefit of this research is to pinpoint imperative thoughts that are consistently implemented in the process of innovation. The consistency provides the discipline. Finally, it has solved three significant barriers for the company to innovate. i.e. company culture, resources & timetable. The consistency of the innovation at Indonesian SMEs can go through three rows, which are Product Innovation, Process innovation, and Service Innovation. Especially in year the 2016, we will merge onto AEC-era. Innovation is the only way for our SMEs to win this hard and brutal competition. Finally, we are able to convince our SMEs to continuously implement open-innovation in their business.

LITERATURE REVIEW

Open Innovation

In order to innovate, there are two criteria of innovation, that is closed innovation, better known by traditional innovation, and open innovation. The traditional innovations are commonly terminologies as "closed" innovations, where most R & D activities are conducted internally. New ideas, products, and technologies that are developed are usually in a place that is isolated in a closed and kept secret. In its development, such closed innovation can be said to be unsustainable (not sustainable). While open innovation is broadly defined as "the use of incoming and outgoing science to accelerate internal innovation processes and to expand markets by using innovation or sources of external innovation or vice versa"[20].

Many companies often make great efforts to innovate products so that they achieve revenue growth and to maintain or increase the profits. Innovations to improve processes and products, generally quite expensive and time-consuming, require considerable upfront investment in everything from research and development of specialized resources, new plants and equipment and even entirely new business units. In the operational area, open innovation can make significant R & D cost savings and increase revenue. Because of these limitations and not sustainable, many companies are turning away from closed innovation to open innovation.

Open innovation practices enable firms to combine external and internal ideas, knowledge and technology, and use both internal and external paths to market, through collaboration with other firms and institutions at local, national and international levels (e.g. universities). Open innovations practices, in general, provide greater opportunities for firms to advance and commercialize their technologies and, hence, enhance their innovation capability and international competitiveness[20]-[23].

Coupling with these new competitions, Indonesian SMEs also need to face abundant obstacles, same as other modern companies. The business model needs to rebalance frequently at all time, as the company need to survive and need to look the sustainable growth in the future[18], [20], [24]. Merely due to customers change and the introduction of the disrupted technology, such as digital technology and business landscape has changed dramatically. Again, our SMEs has forced to prepare flank attack competition from this new competition, prepare tough and aggressively from the current competitors as well as preparing competition from their own clients. Only the SMEs who are prepared to continuously innovate their services as well as their products, are able to win the competition[18], [24]. Through innovation, SMEs consciously implements "Pre-Mortem" while it is still in the shaping way. Through "Pre-Mortem", SMEs identify what could kill them in the next five-years and take appropriate action[25], [26]. Most of SMEs in Indonesia forgot to implement such thing in a very simple way.

With the innovative technologies and entrepreneurship philosophy, context and business handling have been transformed from being traditional to innovative. The innovation has been shifted from closed to open dimension[20]. The road to innovation, despite being a paradigm shift is not smooth and ready for many; particularly the SMEs that mainly deal with the clients outside or export-oriented market. The successful implementation of open innovation in enterprises often come up with some arguments about the critical challenges for SMEs development. The SMEs can be categorized more open to the open innovation implementation because of their nature on size and resources[14], [27], [28]. The intense competition and more demanding customers are becoming motivations for SMEs[14]. The common drawbacks are centering into differentiation in organization and culture between the partners[29]. Opposite to the opportunities, the challenges have a rise as for whether the term of open innovation-hindering growth in research [30].

Most of the researcher discuss on adoption of Open Innovation strategies in the form of practices and applying on innovative technologies[18]. The focus on 'inter-firm cooperation', 'cooperation with intermediary institution', cooperation with

research organization', 'management attitude', 'planning and external orientation', 'R&D alliances' and they are trying to find the impact of open innovation strategies for SMEs. Others are looking at terminology angle, such as 'technology exploitation' and 'technology exploration'[18].

Meantime O'Regan, Ghobadian, & Sims (2006) has found that 'strategy', 'organizational culture', 'leadership', and 'innovation' plays important role in achieving motivation. Laforet (2007) has the different argument, he found that 'Size', 'Strategy' and 'market orientation' links with the open innovation. Therefore, the adoptions of open innovation strategies are increasing at the whole level of entrepreneurship, especially for SMEs[19], [29]. The measurement of open innovation strategies has been revealed by a lot of researchers. Some aspect of management aspects, indicators and technological innovation widely measured.

Indonesian Small Medium Enterprises (SMEs)

The definition of small and medium enterprises is derived from Government Regulation No: 20/2008, which defines small and medium enterprises as independent business activities conducted by individuals or business entities that are not subsidiaries or other branches of the company or controlled or part of either directly or not directly from medium-sized companies or large business units. Based on Government Regulation No. 20/2008 on "Micro, Small and Medium Enterprises", the definition of net worth and sale of small companies as business units with total initial assets of up to Rp 500 million excluding land and buildings, or with a maximum annual sales value of Rp.300 million to Rp.2.5 billion. While medium-sized companies have an initial business unit total assets of Rp.500 million to Rp.10 billion and annual sales value of Rp.2.5 billion to Rp 50 billion.

The current successful Indonesian' SME company who are doing export comes from small companies that were established in such cluster are such as Cirebon, Trangsan-Solo, Tangerang & Surabaya etc. Innovation in Indonesian' SMEs is not truly daily practices & mindset, hand-to-hand & melting-down in their organization and only take place through a few of stakeholders. The innovation that is happening to Indonesian SME entrepreneurs is not the innovation that occurs in many big companies. Innovation that has not been a part of routine activities or has been cultured within their organization[14]. The innovation sparks through individual who thought that it will be useful for the company. This individual who usually came and gain experiences from big companies. Therefore, such Maverick style is very dominant in the Indonesian' SMEs afterword. Trial & Leave activities in their product innovation are probably becoming management view's combined with tight-measure of performance for every manager operating the business unit.

METHODS

The research strategy used in this paper is multiple case studies and quantitative analysis, subsequently detailed information that provides sampling using primary and secondary data. The result will use multi layers data in order to identify the phenomenon of change. The rational decision to choose multiple case studies is based on the ability to replicate analysis in order to obtain either the confirmation of the theoretical existence or contrasted findings of selected cases. The secondary data is collected from government/institution,

association, and statistical biro. The primary data is the questionnaire (“questionnaire”), and in this case, the research instruments were distributed directly to the business actors randomly.

The paper of Opportunity-Challenges Model (OCM) built on the theories of conceptual while developing a structural model to look at the variables that affect the open innovation strategies which bolster the sustainability of business performance. The first step is determining the variables involved in open innovation strategies based on our framework, and then test the model of the relationship between variables in conjunction with the open innovation strategies and sustain business performance. The variables involved in this paper consisted of three independent variables and one dependent variable. Both independent variables are: opportunity (X1) available in the current environment, challenges (X2) are in the same situation opposite the opportunities at the same time, Open Innovation Strategies (S). While the dependent variable is Sustainable Growth Performance (G).

Open Innovation Strategies is built on Opportunities and Challenges available in the current environment for SMEs in Indonesia. Opportunities variables consist of four dimensions; Challenges consists of four dimensions; while the tools to check Open Innovation Strategies has only one indicator, Business Performance has three indicators for the checking. Exogenous latent variables described can build endogenous latent variables. This paper will assess on strategies, especially on open innovation strategies for SMEs. This paper will also analyze whether the “open innovation strategies” of SMEs in Indonesia is being affected by the cumulative effects and the interrelationship between opportunities components and challenges components. Hopefully, this paper will have the impact that can measure and predict open innovation capability, export performance of SMEs, and/or the possibility of market expansion domestically. The relationship between these variables is described hypothetical models as follows:

- H1: To analyze whether the open Innovation is affected by ‘opportunity’,
- H2: To analyze whether the open innovation is affected by ‘challenge’ and
- H3: To analyze whether the business growth performance that adapts to significant open innovation is affected by ‘opportunity’ and ‘challenge’.
- H3: To analyze whether the ‘opportunity’ is affected by ‘challenge’.

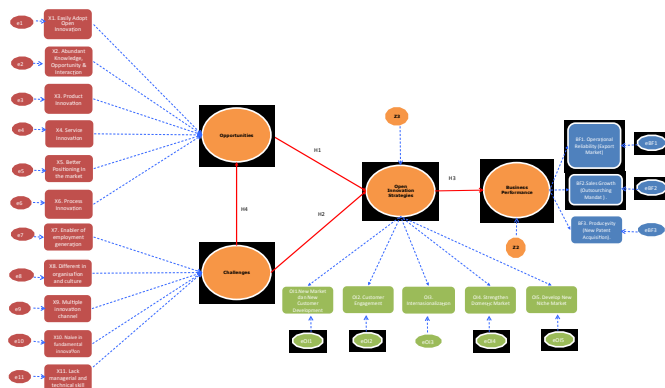


Figure 2 Initial Hypotheses of Opportunities and Challenges to Open Innovation

The data in this paper consisted of quantitative data. The quantitative data in the form of financial reporting inserting in the questionnaire consist of variables of Challenges & Opportunity (X1 & X2), variables Open Innovation Strategies (S) and variables Business performance (G).

The location of this research will be taken in several places in different provinces. Primary data of this paper are achieved through interviews and observations. The research populations are SMEs that are listed within 'associations' and are registered within 'chamber of commerce'. Research samples are determined based on purposive sampling by criteria (a) registered with training program and promotion subsidy from government, whether it is from association, local government, or central government, (b) included in the criteria and characteristics of SMEs according to Government Regulation no.9/2008, (c) the company has operated and run for a minimum of two years until the survey was taken. The secondary data will be taken from the Trade Department, UMKM Department, Industrial Department and BPS. The denomination between ‘open SMEs’ is simply based on our question/interview whether surveyed firms actively participated in collaboration/co-operation projects (‘outbound process’ and ‘couple process’) or received support (‘inbound process’) from other firms or university or association or government that resulted in innovations, commercialization and/or new product development at the time of survey conducted.

This paper will be limiting the research within the context of opportunities for open innovation strategies for Indonesian SMEs to provide better products (product innovation) and services (service innovation) through better processes (process innovation) as well as technologies (technology innovation). Another limitation is the context of the challenges that SMEs need to face, such as by acting as a starter or catalyst in the new competitive environment, adopting them quickly to the company, catering multiple innovation channels for next platform and finally triggering employment generation for sustainable business performance.

RESULT AND DISCUSSION

In total, 38 responses were collected. The hypothesized model was analyzed using PLS path modeling. Our original measurement model consists of 48 items used to measure four constructs as per Figure.2, we need to test the relationship between the constructs and their respective measurement items. The loading factor analysis to eliminate the loading factors to less than 0.6 [34] is used, hence we were able to eliminate 36 items in this model. In this paper, we did 1000 samples using bootstrap facility with 95% confidence interval. Upon executing the command, we have the bootstrap output shown in figure. 3 below.

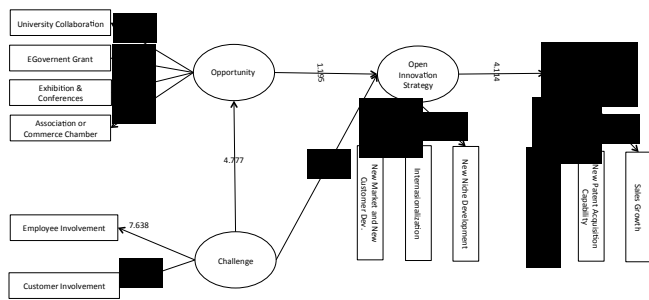


Figure 3 The Graphical representation of the model with the loadings

Testing the Measurement Model

A series of validity and reliability checking were performed for both the structural modeling (Inner model) and the measurement modeling (Outer Model). As shown in Table 1, the measurement modeling was checked using Convergent Validity, Discriminant Validity, Composite Reliability, Average Variance Extracted (AVE) and Cronbach Alpha.

Based on table.1 above, the first test performed was convergent validity, the outer value of loading is equal and above 0.70 or more than minimum toleration score of 0.50[34]. In addition, the construct reliability test was also done by measuring two criteria: Cronbach's Alpha and Composite Reliability. These values reflect the reliability of all indicators used in this paper. We thought that for this research purpose, reliabilities of alpha 0.70 were sufficed.

Table 1 The construct reliability and validity

Construct Reliability dan Validity		Outer Loading	AVE	Cronbach's Alpha	Composite Reliability
Business Performance	Operational Reliability (Export Market)	0.692	0.666	0.490	0.743
	Productivity (New Patent Acquisition)	0.769			
	Sales Growth (Outsourcing Mandat)	0.636			
Challenges	Employee Involvement	0.859	0.456	0.579	0.826
	Customer involvement	0.817			
Open Innovation Strategies	New Market dan New Customer Development	0.534	0.703	0.413	0.711
	Internasionalization	0.786			
	Develop New Niche Market	0.683			
Opportunity	University Collaboration	0.791	0.492	0.833	0.889
	Government Grant & Support	0.854			
	Exhibition & Conferences	0.807			
	Association of Commerce Chamber	0.811			

The second test was the discriminating validity test. The discriminant validity was performed in order to check the degree to which the remaining items that has loading factors that have more than 0.6 can differentiate between constructs, or measure different constructs. Based on table.2, the model in this paper has sufficient discriminatory validity since the AVE Root for each construct is greater than the correlation between the other construct constructs.

Table 2 The discriminant validity

Discriminant Validity	Business Performance	Challenges	Opportunity	Open Innovation Strategy
Business Performance	0.695	na	na	na
Challenges	0.463	0.389	na	na
Opportunity	-0.569	-0.412	0.510	na
Open Innovation Strategy	-0.402	-0.773	0.339	0.496

Testing structural model

The testing structure model consisted of the evaluation of the size, sign, and significance of the standardized path coefficients. Based on table.3, the summary result of model

indices, the coefficient of determination (R2) consists of 21.50% of the variance in 'business performance', 13.80% for Open Innovation Strategy and 22.60% of the variance in 'opportunity' are accounted for by the model. Sanchez, et al. (2015) considered the coefficient of determination (R2) values of >.60 as high, between 0.30 and 0.60 as moderate and below 0.30 as low. Hence, based on table.3 the R2 values, are low. On the other hands, the percentages of the coefficient of determination (R2) explained by the model are greater than 10%, which implies the satisfactory and significant [35].

Table 3 Summary of Structural Model Indices

R Square & R Square Adjusted	R Square	R Square adjusted
Business Performance	0.236	0.215
Open Innovation Startegy	0.185	0.138
Opportunity	0.247	0.226

Table 4 Structural model path coefficients

Path Coefficient	Original sample	Sample Mean	Standard Deviation	T statistik	P value
Challenges -> Business Performance	-0.175	-0.184	0.254	0.688	0.491
Challenges -> Opportunity	-0.497	-0.517	0.104	4.777 *	0.000
Opportunity -> Open Innovation Strategy	-0.486	-0.553	0.118	4.114 *	0.000
Open Innovation Startegy -> Business Performance	0.315	0.323	0.264	1.195 **	0.232

* Significant at 0.01 and ** significant .10

Table.4 shows the loading (estimate) of 'challenges', 'opportunity', 'transaction costs' and 'open innovation strategy' respectively are presented. As Table.4 shows the regression weights for the effect of 'challenges' on 'opportunity' and 'opportunity' on 'open innovation strategy' are statistically significant at 1%. The other weight for the effect of 'open innovation strategy' on 'business performance' is statistically significant at 10%. The remains loading (estimate) of 'challenges' on 'business performance' is statistically insignificant. It can be seen from the models that 'challenges' is the most significant construct for 'opportunity' instead of 'business performance'. The difference may be due to a direct effect from 'challenges', which will be discussed in the conclusion.

In our hypothesized model, we suggested that 'open Innovation' is positively related to perceived 'opportunity' (H1). These hypotheses were supported by data. It was hypothesized that 'opportunity' is positively related to the 'open Innovation' (H1). It is a quite general finding that the entrepreneur has higher expectation to 'opportunity'. Accordingly, in this paper, the 'opportunity' by entrepreneur is found to be well liked appreciated because they take the very advantage of 'opportunity'. We hypothesized that 'challenge' is positively related to 'open Innovation' (H2). However, findings in this paper suggested that such a relationship is insignificant. Instead, the 'challenge' is positively related to 'opportunity' (H4). It is an understanding that the entrepreneur has the lower expectation to 'challenge' since challenge naturally created the opportunity function over the business utility function. However, the 'open Innovation' is less positive at 90% confident interval related to 'business performance' (H3). In the situation, the entrepreneur' decision is determined by whether their open Innovation strategies can spur their performances. These findings prompt entrepreneur to perceive more 'opportunity' over 'challenge'.

The world is fundamentally changing, all SMEs that have unprecedented experience must adapt to new environment. Only through open-innovation, SMEs are able to survive and

win the competition. The liberating market and investment have a positive impact especially in increasing the innovation of SMEs in another part of the world. Free trade will create bigger market than before, and thus creating companies that innovate to benefit from their own innovation. Free trade and foreign investment affect companies in innovation in many aspects such as employee involvement, external participation, R&D outsourcing, patent licensing, and intellectual property copyrights. All aspects above are categorized as 'outside-in' in the innovation process. Meanwhile, it opens 'Ventura' cooperation and intellectual property licensing that are categorized as 'inside-out' aspect from innovation process.

The result of 'how big and how affected' this relationship between "Opportunities and Challenges" with "Outside-In" and "Inside-Out" on free trade and foreign direct investment to Indonesia SMEs will be assessed as it is described earlier. Given the aspects of "Opportunities and Challenges" are coming arise from the result of liberating the trade between the countries, the paper also needs to check the relationship and 'how big and how affected' those connections. At the end, we hope that the result can measure and predict those correlations that will lead us to know about "Open New Market and Customer Capability" and "Export Performance of SMEs" and/or "Possibility of Market Expansion Domestically" on Indonesia SMEs.

CONCLUSION

The above results show some interesting findings. First, they confirm our initial argument that the 'opportunity' is positively to 'open Innovation' but not for the 'Challenges'. In our study, the 'open Innovation' is more likely to be influenced by 'opportunity' than 'challenge' for the hypothesized model (H1) and (H2). This paper assessed the opportunities and challenges of open innovation strategies for Indonesian SMEs due to the fast changing environment and government of Indonesia liberating the trade with other countries or another free-trade block. The 'Innovation Opportunity Framework' is needed to developed by SMEs in Indonesia using aspects of 'opportunities and challenge' on regular based, given that the current and future business environment landscape. By keeping these opportunities and challenges of SMEs on open innovation in mind, the innovation opportunity framework needs to be performed under FTA implementation. The complex relationship occurs between the FTA and the open innovation strategy, through the paper - this complexity is expected to be spelled out clearly, so the results are expected to make a useful contribution for scholars, SMEs entrepreneurs, and policymaker both Regional Government as well as National Government.

In order to survive, the Indonesian SMEs must improve their own innovation activities, either in the form of new product, new service, a new process or using new technology to satisfy its own customers. But on the other hand, increasing innovation activity upon integration requires more resources to provide, that in the scale of economic will probably not suit (the domestic market's demand). There will probably be companies that are doing a very small amount of innovation. The best example of this situation can be seen as the producers of furniture and household appliance in Indonesia are in a better trade-off to stop their manufacturing and profitability just to be a merchant or become an extension of the same industry of the SMEs from China. On the other hand, the

opening of export markets causing many SMEs to easily export their merchandise, licensing their copyright and investing out in the form of an outward FDI to other countries. The second responsible party that boosts Indonesian innovation is the governments (regional and national) beside entrepreneurs. Indonesian governments have implemented many regulations to promote innovation including within R&D, intellectual property, education, market labor, the stock market, as well as product market. The Indonesian government has also realized that encouraging the business environment to innovate is the most important thing. Public regulation, and open trading regulation as well as investment regime, is an important aspect of existing innovation, that is possible for incoming technology, increasing compositions and opening new markets for entrepreneurs. International trading and foreign direct investment are very important to the business environment in Indonesia as a way to exploit innovation.

In the future, the government is expected to enact and take a lot more aggressive role in maximizing the presence of the entrepreneurs of SMEs because the economics of Indonesia are becoming more open. The economic cooperation and trade liberalization should be able to improve the ability of SMEs for innovation so that it can compete fairly. The government's policies on the entrepreneurs of SMEs which are currently taking more than 90 % of the Indonesian workforce should be considered as a national policy. Furthermore, the policy on FTA should also provide long-term benefits aspects especially with respect to the transfer of technology that must occur, in which there is the ability of SMEs to grow and create innovation in the form of the ability to set up R & D by themselves, or in collaboration with other outside parties.

FUTURE RESEARCH DISCUSSION

The future paper will still continue to explore a better framework for the practice of SMEs that is associated with a new round of free-trade developments, 1) future studies may incorporate findings of different strategies in improving business performances for SMEs in Indonesia; 2) future paper could be focused on identifying different opportunities and challenges within dynamics environment; 3) future researcher could pay more attention to the inflows & outflows of innovation within SMEs and other parties.

It is demanded that in the future challenge, the business support intermediaries such as Indonesian Chamber and/or Business Association and/or Government/Policy Makers can identify and support these key factors' capable and having special approach in order to promote SMEs with innovation and growth potential. It is also mandatory to identify the processes and conditions that produce and sustain these "distinguished SMEs" as they are vital to regional and national economies

References

1. WTO, "10 things the WTO can do," *World Trade Organization*. 2014.
2. D. K. Brown, A. V. Deardorff, and R. M. Stern, "Pros and Cons of Linking Trade and Labor Standards," in *Research Seminar In International Economics*, 2001, no. 477, pp. 2-30.
3. OECD, "OECD Reviews of Regulatory Reform: Indonesia Market Openness," no. September. 2012.
4. M. ER, A. Herdiyanti, and H. M. Astuti, "Readiness of

- Indonesian Companies for ASEAN Economic Community (AEC) - Preliminary Findings from Automotive and Garment Industry,” in *International Conference on Industrial Engineering and Operations Management*, 2014, pp. 2133-2142.
5. Riandi and Y. Pratomo, “Indonesian Comparative Advantage Entering the ASEAN Economic Community,” *J. Ekon. dan Stud. Pembang.*, vol. 9, no. 1, pp. 86-101, 2017.
 6. OECD, “Structural Policy Country Notes Indonesia.” 2013.
 7. World Economic Forum, “Annual Report 2015-2016,” 2016.
 8. WIPO, *The Global Innovation Index 2015: Effective Innovation Policies for Development*. 2015.
 9. Z. C. Senik, B. Scott-Ladd, L. Entrekin, and K. A. Adham, “Networking and internationalization of SMEs in emerging economies,” *J. Int. Entrep.*, vol. 9, no. 4, pp. 259-281, 2011.
 10. M. Madlberger, “Interorganizational Collaboration in Supply Chain Management: What Drives Firms to Share Information with Their Partners?,” in *41st Hawaii International Conference on System Sciences*, 2008.
 11. R. Rahayu and J. Day, “Determinant Factors of E-commerce Adoption by SMEs in Developing Country: Evidence from Indonesia,” *Procedia - Soc. Behav. Sci.*, vol. 195, pp. 142-150, 2015.
 12. Ernst & Young, “The digitisation of everything: How organisations must adapt to changing consumer behaviour,” *Ernst & Young LLP*. 2011.
 13. Ernst & Young, “Shifting from consumption to experience: Winning in the omnichannel retailing.” p. 2, 2014.
 14. E. Sudarmaji, “Employing Open Innovation Where SMEs Need It Most: The Indonesian Perspective,” in *4th Gadjah Mada International Conference on Economics And Business 2016*, 2016, pp. 696-709.
 15. I. Nasip and E. Sudarmaji, “Model Bisnis Kanvas: Alat Untuk Mengidentifikasi Peluang Bisnis Baru Bagi Pengusaha UKM Indonesia,” in *1st National Conference on Business and Entrepreneurship*, 2017, no. May.
 16. M. Irjayanti and A. M. Azis, “Barrier Factors and Potential Solutions for Indonesian SMEs,” *Procedia Econ. Financ.*, vol. 4, no. Icsmed, pp. 3-12, 2012.
 17. P. Braunerhjelm, “Entrepreneurship , Innovation and Economic Growth,” 2010.
 18. H. Rahman and I. Ramos, “Research and Practicies on Open Innovation: Perspectives on SMEs,” *SMEs Open Innov. Glob. cases Initiat.*, pp. 1-23, 2012.
 19. P. Wynarczyk, “Open innovation in SMEs,” *J. Small Bus. Enterp. Dev.*, vol. 20, no. 2, pp. 258-278, 2013.
 20. H. Chesbrough, *Open Innovation The New Imperative for Creating and Profiting from Technology*. 2003.
 21. H. Chesbrough, E. Enkel, and O. Gassmann, “The Future of Open Innovation,” *R&D Manag.*, vol. 40, no. 3, pp. 213-221, 2010.
 22. K. Laursen and A. J. Salter, “The paradox of openness: Appropriability, external search and collaboration,” *Res. Policy*, vol. 43, no. 5, pp. 867-878, 2014.
 23. T. H. Clausen, T. Korneliusen, and E. L. Madsen, “Modes of innovation, resources and their influence on product innovation: Empirical evidence from R&D active firms in Norway,” *Technovation*, vol. 33, no. 6-7, pp. 225-233, 2013.
 24. L. A. G. Sánchez, “Innovation 2.0: Creating a Sustainable Business Model and a Win-Win Ecosystem,” pp. 274-292, 2012.
 25. J. K. Mills and J. McKimm, “Pre-empting project failure by using a pre-mortem,” *Br. J. Hosp. Med.*, vol. 78, no. 9, 2017.
 26. G. Klein, “Performing a Project Premortem,” *Harvard Business Review*. 2007.
 27. J. Hamdani and C. Wirawan, “Open Innovation Implementation to Sustain Indonesian SMEs,” *Procedia Econ. Financ.*, vol. 4, pp. 223-233, 2012.
 28. Muzamil and G. Ginting, “A Strategic Open Innovation Model: Productivity Improvement In Small Medium IndustrIES/SMIs,” *Asia Pacific J. Adv. Bus. Soc. Stud.*, vol. 1, no. 1, 2015.
 29. V. van de Vrande, J. P. J. de Jong, W. Vanhaverbeke, and M. de Rochemont, “Open innovation in SMEs: Trends, motives and management challenges,” *Technovation*, vol. 29, no. 6–7, pp. 423–437, 2009.
 30. A. J. Groen and J. D. Linton, “Is open innovation a field of study or a communication barrier to theory development?,” *Technovation*, vol. 30, no. 11-12, p. 554, 2010.
 31. N. O’Regan, A. Ghobadian, and M. Sims, “Fast Tracking Innovation in Manufacturing SMEs,” *Technovation*, vol. 26, no. 2, pp. 251-261, 2006.
 32. S. Laforet, “Size, strategic, and market orientation affects on innovation,” *J. Bus. Res.*, vol. 61, no. 7, pp. 753-764, 2007.
 33. Biro Peraturan Perundang-undangan Bidang Perekonomian dan Industri, “Undang-Undang Republik Indonesia Nomor 20 Tahun 2008 Tentang Usaha Mikro, Kecil Dan Menengah,” no. 1. pp. 1-31, 2008.
 34. I. Ghozali and H. Latan, “Partial Least Squares Konsep, Teknik Dan Aplikasi Menggunakan Program SmartPLS 3.0.” 2012.
 35. R. F. Falk and N. B. Miller, “A Primer for Soft Modeling,” 1992.

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