Impact of Innovation Capabilities on Firm Performance of Pharmaceutical Industry in Indonesia

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Article History:

Submitted: 20.10.2019

Revised: 18.12.2019

Accepted: 14.01.2020

ABSTRACT

Innovation has been identified as another layer of excellence, played major role in advancing long term greater performance of business in developing competitive advantage. Therefore, the basic objective of this study was to investigate the association of innovation capabilities with firm performance of pharmaceutical industry in Indonesia. To accomplish the objective of this study quantitative approach of research was adopted and the collection of data was made by using questionnaire. For the purpose of data analyse, PLS software was carried out. This study found that human resource-oriented knowledge management practices, technology-oriented dimensions of innovation like leadership, managerial levers and business processes have significant and positive influence on firm performance in Indonesia.

INTRODUCTION

In the era of 21st century, productivity and quality are not the only drivers that promote organisation survival. This is due to the variation in business settings which has turn out to be more competitive. In this context, innovation has been identified as another layer of excellence, played major role in advancing long term greater performance of business in developing competitive advantage (Holtzman, 2014). Innovation is referred to the application and adoption of upgraded product (good or services), advertising techniques or business methods. Moreover, innovation regarded as one of the key forces stimulates development of new goods, creating new opportunities and transform businesses to confront world-wide competitiveness (Sood & Tellis, 2009). At the international level, innovation is greatly highlighted with respect to the financial performance of the country likewise Universal Innovation Index and Global Competitiveness Yearbook.

According to a survey on investing innovation for year 2018 indicated that 40 to 70 out of a hundred of the business in many countries devoted for innovation lead to higher sales and productivity (Tellis, Prabhu, & Chandy, 2009). According to this, it is crucial for businesses to innovate as an essential requisite in order to obtain higher outcomes. By this, it can be indicated that businesses are required to increase their value with the help of innovation to enjoy greater performance and expansion of business. Moreover, innovation is a crucial element in increasing its productivity and competitiveness of the economy (Anning-Dorson, Nyamekye, & Odoom, 2017) Therefore, it is practically important for Indonesian pharmaceutical firms to focus on innovation as one of the main agenda to heading towards the Innovation Driven Stage of Development path. However, pharmaceutical firms need to confront its innovation challenges by improving innovation capabilities and enhancing the driving force of innovation (World Bank, 2010). One of the major contributors towards performance growth is the manufacturing sector and although the portion to GDP is

Findings of this study provide the essential understandings to enrich the current literature regarding firm performance of pharmaceutical firms in Indonesia in the light of innovation capabilities. Keywords: Innovation capabilities, financial performance. pharmaceutical firms. Correspondance: Tri Andjarwati Fakultas Ekonomi, Univeristas 17 Agustus 1945, Surabaya Indonesia E-mail: triandjarwati@untag-sby.ac.id DOI: 10.5530/srp.2020.1.31 © Advanced Scientific Research. All rights reserved

considered large, the number of manufacturing firms engaged in innovation is about 35 percent (Ee Shiang & Nagaraj, 2011). This figure is still low as compared to developed countries such as France 46 percent, Germany 67 percent, Denmark 53 percent and Sweden 48 percent (Ee Shiang & Nagaraj, 2011).

The above scenario depicted the important role of innovation and it is noticed that this has indirectly indicated the association of innovation and performance which is vital for continuing financial expansion. When innovation is in its place, it can accelerate organisation in achieving its competiveness by improving business performance with regard to strategic point, clients, resources and competences and product offerings (Manresa, Bikfalvi, & Simon, 2019). There are many types of innovation approach as discussed by earlier scholars depending on the nature of the organisation (Gupta, Tesluk, & Taylor, 2007). However, there is no sole innovation approach that one size fits for all. Therefore, it is relevant to observe the success of its implementation on performance from the perspective of 'how' it works and in 'what' form it takes. A systematic review on innovation has indicated the gap to describe this situation in the sense of innovation procedure and innovation results (Crossan & Apaydin, 2010). Innovation procedure (describe the how) refers to a sequence of activities from idea generation transformed into successful product or process (Ee Shiang & Nagaraj, 2011).

The very early idea on innovation was introduced by a social scientist, Joseph Schumpeter (Fagerberg, 2003). Since then, there were numerous studies was conducted to examine the relevant issues related to innovation. Various issues discussed include: contributing factors or determinants, types of innovation, theoretical views on innovation, definitions, its impact on performance, implementation and the drive of innovation in organisation. These were performed by (Johannessen, 2009), Johannessen (2009), Smith et al. (2008), Murat Ar and Baki (2011), Hilmi et al. (2010) and Choi et al. (2011). In short, innovation studies have been conducted in a

broad sense. Discussions with regards to performance have brought high attention due to the ultimate goal of organisation and the one that can bring the long term effect to performance is innovation(Kemp et al., 2003; Suriati, 2014). Although literatures have established the importance of innovation on firm performance with respect to the growth in sales, market share, productivity, market value, productivity and asset growth (Akgün, Keskin, & Byrne, 2009; Li, Zhou, & Si, 2010; Talke, Salomo, & Rost, 2010), there is a need to understand innovation in a broader perspective in terms of how it works and what was the outcome of innovation that contributes to performance (Crossan & Apaydin, 2010). Therefore, this study is conducted based on theoretical gaps and practical issues. The theoretical gaps include: inconsistency of previous results with respect to innovation and issues on performance, inconsistency in the conclusions associated with innovation procedure contributions, conflicting findings on relationship between innovation process and innovation outcome, inconsistency to clarify innovation outcome role, limited studies on antecedents of innovation process and lack of empirical study.

Moreover, a clear contextualisation on the nature of innovations that increase the performance need to be explored (Atalay, Anafarta, & Sarvan, 2013). This is due to the several terms used by scholars to explain the innovation types and its relation with performance and inconsistency in previous findings. There was previous finding which did not support the association among innovation types (organisational, 8 process and production) and financial performance instead it is only affected innovative results (Atalay et al., 2013). The effect on business performance was interacted by additional constructs which differs from one scholar to another. Firm' innovation activities in terms of exploratory (radical innovation from emerging customer needs) and exploitative innovation (incremental innovations existing customer needs) have increased performance through additional factors such as firm's strategy and environment factor (Lin, Tan, & Geng, 2013). However there was also other variable such as organisational structure that inter acted the relationship (Jansen, Van Den Bosch, & Volberda, 2006). Accordingly, the link of innovation with business performance is empirically tested with the influence of "product fit" (the extent of appropriateness among customer demands and product) and "process fit" (the degree of fitness among the product and numerous elements of the value chain). Hence, earlier studies are actually lacking in describing how the implementation of innovation process in the organisation that finally affect performance.

Inconsistency of the findings was also found in the following study. According to Susana Marques and Monteiro-Barata (2006), innovation process in the manufacturing firm involved innovation input, innovation output and throughput process. Instead of being postulated as the final outcome (dependent variable), firm performance was stated as the determinant to innovation process (Susana Marques & Monteiro-Barata, 2006). Although in their study, innovation process input is influenced by business performance however, the connection of innovation process output and

performance was not found. This is also proven by earlier study where (de Jong, Kemp, & Folkeringa, 2003) managed to show the influence on performance specifically on turnover and employee growth. However, their study found no effect of innovation process on firm performance with regard to of profitability and productivity. Innovation outcome (describe the what) refers to the achievement of innovation goals and towards increasing organisation orientation innovativeness (Phromket & Ussahawanitchakit, 2009; Stock & Zacharias, 2011). There were numerous studies undertaken where the major concern is about innovation implementation and its impact on performance (Abidin, Mokhtar, & Yusoff, 2011; Gunday et al., 2011; Salomo, Talke, & Strecker, 2008). However, there are still gaps highlighted from conflicting findings which involved the innovation procedure and innovation result (Crossan & Apaydin, 2010). Therefore, this study is motivated to fill the gap. The focus of this study is on pharmaceutical industry where some of the issues are also related to the implementation of innovation.

LITERATURE REVIEW

Firm Performance

Firm performance is often being the primary focus in the organisational management studies (Anning-Dorson, Odoom, et al., 2017). Objective to improve and increase in performance is manifested in most studies because it inquires about understanding competitive survival of an organisation and reaction from its environment adaptation (Anning-Dorson, Odoom, et al., 2017). Emphasise on organisational performance or in this context of study, firm performance indicates that it is an important indicator and the idea is very common in previous studies (Gavrea, Ilies, & Stegerean, 2011). Scholars have focused on explaining firm performance from various perspectives. For instance, the definition of performance evolved according to organisation context and its focus on work, people, organisational structure, organisation ability to exploit resources and ability of organisation to accomplish its goals (Obeidat & Zyod, 2015).

Firm Performance and Innovation

In the literature, researchers have recognized the significance of innovation with business performance. Researchers have conducted these studies in various different research perspectives empirically and conceptually (Atalay et al., 2013; Leal-Rodríguez et al., 2015; Shaukat, Nawaz, & Naz, 2013; Talke et al., 2010). In describing the connection between innovation and organisational performance Pino et al. (2016), claimed that various aspects are associated with diverse performance measures. In this context, performance is concerned with the measurements of efficiency and effectiveness. The author has also conceptualised the "financial and non-financial" measures. Financial measures used are return on asset, investment and profit growth while the non-financial measures are the employees rating on overall effectiveness (AI-Alak & Tarabieh, 2011). This has signified in many ways that innovation may be linked with performance of the business. Organisation introduced variations regarding their operations and structure by having aim of striving or improving performance. A study represents that business innovation and firm performance is highly associated with the extent of innovations in their societal and technical setup of high performing organizations (Gunday et al., 2011).

This means that the rate of relationship among people in the organisation who interact to achieve innovation goal with those people in the technical system that directly related to the primary activity in an organisation. In this study, researchers have incorporated the input of both technical and administrative innovation regarding business performance. It was concluded that administrative innovations may result in the change of business environment, communication, firm level relations, and individual strategies. On the other hand, administrative innovation may have important long run impact on the performance in comparison of technical innovations (Campo, M. Díaz, & J. Yaqüe, 2014). Therefore, business innovative ability in mangling a balance among their societal and technical operations will decide innovativeness and performance of a business. In this context, performance is the ability of an organization to deal with all four processes namely inputs, outputs, transformation and feedback effect. In another related study in the banking service industry, it has showed the association between technical and administrative innovation regarding business performance is significant in attaining synergies of the kinds of innovation and increase general performance of business (Azar & Ciabuschi, 2017). Kafetzopoulos, Gotzamani, and Gkana (2015) have the opinion that both kinds of innovation act as mediator amongst market orientation and business performance. Moreover, it was concluded that market orientation results in the greater performance of a firm.

Furthermore, Kilic et al. (2015) studied the association among innovation procedure, types of innovation and business outcomes. For the purpose of this study, business performance is recognized as innovative outcomes, manufacturing performance, market offerings and financial outcomes. Researchers concluded that innovation approach regarded as the key of business performance and could be applied as an internal component of the business operation to enhance performance of operations. Business may enjoy greater performance if it mould it's prioritise and manage innovation with strategic point of view. Study of Talke et al. (2010) suggested that innovation orientation has significant indirect influence with the mediation of innovativeness of company's new product selection. By above discussed components, business formation and impression focus points has a direct influence on the business performance. However, other two components, specification of focus areas and stimulation of synergies are regarded as least important contributor of business performance. Accordingly, Saunila (2016) suggested a theoretical model for the evaluation of firm performance, business innovation and associated circumstantial issues. Their framework support innovation at firm level. Accordingly, five main perspectives include in the model are firm performance, innovation results, innovation, innovation capability and outside environment. By this model, performance of a firm is influenced in a mediating

way by the innovation outcomes likewise lesser cost and improved facility. Hence, innovation of a business is affected by business innovative competence.

Together exploratory and exploitative innovations positively impact business performance (Qi et al., 2010). The exploratory innovation is the radical type of innovation which pursues the new market segment for emerging customer while exploitative refers to incremental innovation meant for improvement. Therefore, fit between the two is needed in terms of to complement each other and to establish balance effect on performance. Firm are required to implement exploratory innovation in varying environment for the purpose of finding greater market segment to explore and continue. In contrast, in the less competitive environment, businesses may continue their prevailing setup by facing low expenditure exploitative innovation that is more advantageous for performance of the business. Therefore, the inside fit of exploratory and exploitative innovation in both ways moderating or matching is not significantly associated with organizational performance. In contrast, fit among innovation operations and business strategy significantly influences business performance. The above discussion has showed the association of innovation with business performance. Whether conceptual or experiential, both have observed a positive impact of innovation and performance. It is found that firm performance was defined in different ways and different perspectives depending upon the context of innovation studies.

Elements of Innovation

The competitive success of organisation in managing innovation process depends on many factors or determinants. Waldner et al. (2015) proposed three factors; organisational members, size and the structure of organisation and environment factors that affect the innovativeness and performance. According to Crossan and Apavdin (2010), the three constructs are based from comprehensive review, involved multi-dimensional factors, supported by theory and it can be practical at the firm level. According to Chang, Hughes, and Hotho (2011), internal and external antecedents are important element that influences the development of balance dimensions of innovation between exploration and exploitative types. The following literature review will focus on each factor: leadership, managerial levers and business process which is establish as the innovation antecedents for this study.

Leadership

Leadership is regarded as the firm level competitive strength to develop innovation. In a research of 600 global executives and professionals, it is reported that leadership is the best representative element of innovation outcomes (Hilman & Kaliappen, 2014). This can be seen through its role in affecting core value of organisation, influence on the social mind set of the participants, involved in the processes of decision flows and become formal and informal role sets of individual and groups (Rajapathirana & Hui, 2018). Earlier study on innovation management shows that the structure and system focus of the organisational members only to routine work not innovation activities if there is no leadership intervention. According to Samsir (2018), the degree of managers facilitate their subordinates to be innovative is measured through transformational-transactional leadership. There are three factors describing transformational leadership as charismatic, individualized consideration, intellectual stimulation and two factors describe the transactional leadership that are "contingent reward and management by exception". Kinds of leadership behaviours contribute in the innovation management (Vaccaro et al., 2012).

Organization that has less complexity and small size gain more benefits from the transactional leadership in understanding management innovation. In contrast, more complex businesses are required to draw on transformational leaders to alternate their complexity and permit innovation to be more developed (Vaccaro et al., 2012). It is significant the innovation in a firm depends upon the innovative mind set of workers. However, transformational leadership associated with the innovation application mind set of followers (Michaelis, Stegmaier, & Sonntag, 2010). Michaelis et al. (2010) accordingly recommend that firm should finance in the transformational leadership development by choosing this kind of managers having this type of leadership style. In a case study of innovative construction projects, the application of innovative leadership is proven.

In one of the previous study, it is found that there is also relationship between this leadership approach and innovation outcome (Simsek et al., 2015). There are two different style of strategic leader differently effect on innovation outcome between exploratory and exploitative kinds of innovation. Transformational leadership behaviours participate importantly in integrating exploratory innovation while transactional leadership is linked with the exploitative innovation (Jansen, Vera, & Crossan, 2009). In the dynamic environment where the rate of change (technologies, customer preference and fluctuation in product demand or supply) is unpredictable, transactional leadership is not suitable for learning process that challenges the institutional learning. Therefore, transactional leadership had negative effect on exploratory innovation (Jansen et al., 2009). Friedrich, Griffith, and Mumford (2016) claimed that previous research on the intervention of leader at multiple levels and across stages of innovation process is not consistence. Leaders have exclusive opportunity to influence innovation at every level and across stages of innovation. In this context, Friedrich et al. (2016) proposed the influence of leadership characteristics in terms of expertise and creative problem skills towards the product, process complex, and simple innovation. Expertise is an acquired skill and knowledge gained from experience and practice while creative problem skill refers to the ability of leader to push creative effort which facilitates innovation (Friedrich et al., 2016).

Managerial Levers

Managerial levers are key formation of a firm that must be connected in order to maximising business operation and precision (Mackelprang & Malhotra, 2015). According to Chiaroni, Chiesa, and Frattini (2011), levers enable organization to control the current trends to enhance their innovation. With the current economic situation, most companies are struggle within seven types of managerial levers that are policy, construction, leadership, knowledge and decision procedures, persons, values, repayments and incentives. In one of the past study on enlightening new mind-set for business innovation, managerial levers operate as a technique that facilitate organisations to higher levels of innovation as well as its sustainability (Voelpel, Leibold, & Tekie, 2004). From the perspective of innovation, managerial levers are found to have high impact on three areas include value proposition, value network and target customers (Pletcher & Mann, 2013). The important of managerial levers which involved structural and skill were proven in building a capable organisation (Crittenden, Crittenden, & Crittenden, 2014). Therefore organisation needs to have a clear understanding of each lever role so that it could really bring impact on organisation ability to succeed. According to Crossan and Apaydin (2010), there are numerous of levers that have been used for organizational change which is complex and often overlap. Therefore, this study focuses on managerial levers as suggested by (Crossan & Apavdin, 2010). In an empirical review of business innovation, Crossan and Apaydin (2010) have proposed managerial levers which include a metaconstruct that include combining business level variables helpful for the innovation. Since this study is focusing on innovation implementation at the firm level, it is practical for managerial levers to be applied as one of the antecedent variables. As for this study, the researcher utilises five types' managerial levers namely: strategy, structure, resource distribution, organisational learning and information management methods and principles (Lind, Karlsson, & Öhrwall Rönnbäck, 2017). The following discussions describe each of the managerial levers applied in this study.

Strategy is the first managerial Strategy is the first managerial levers. According to Heckenberg and White (2013), strategy refers to combined set of acts in line with the business purposes, objectives and goals and is regarded as the continuous management practice (Lin et al., 2013). Apart from being the most necessary form of activity in the organisation, strategy is also act as basis for innovation (Haney, 2006). For dealing with the managerial issues that may occurred from possible difficulties with current resource allocation, competences and organisational procedures, strategy is highly needed (Blumentritt & Danis, 2006).

Business Processes

Business processes is an organized method used to analyse and constantly develop key activities that include production, communication or other key components of an organisation operation (Dibrell, Davis, & Craig, 2008). It begins with objectives and end with the achievement of the particular objective where the outcome of the well design goal is increased in effectiveness and efficiency. Although many organisations found difficult to define the concept of business processes, the expectation of the benefit is actually for organisational performance. "Business Processes" is regarded as meta-construct that integrates operational variables together (Crossan & Apaydin, 2010). With regard to the innovation, business processes involve origination, portfolio administration, expansion and application, project management and execution (Crossan & Apaydin, 2010). According to Lederer Antonucci and Goeke (2011) business processes have progressed from functionality and system focused to management practices where the general discipline has collaborate management, persons, procedure and technology with regard to the operational and strategic practices. Therefore, the business processes management does not only focus on what the organisation organizes, but it can be done in well-organized and effective method (Lederer Antonucci & Goeke, 2011). Business processes is acknowledged as strategic, procedural and strategic where strategic enables flexibility, development and change in the organisation (Abidin et al., 2011). In fact, the way business processes have been managed is regarded as the best management practice principle that will sustain competitive advantage (Hung et al., 2011). Tactical process further associated with the information generation and knowledge exchange in innovation and R&D undertakings (Abidin et al., 2011).

From the perspective of resource based view, business processes are becomes a path-dependent process through which the firm developed its resources and capabilities (Chiarot et al., 2005). In fact, a study of 'Fortune 500' firms has indicated that the business processes has directly affected customer responsiveness and product or service innovation (Bhatt & Troutt, 2005). This is achieved from the improvement and initiative of firm's business processes towards efficiency (Winterhalter et al., 2017). For instance, by proactively keeping in track from customers' feedback and also procedural decision making of production, advertising and research department in

developing new product or services, business processes can increase productivity and enhance customer focus (Schniederjans, 2018). In other words, business processes is done across functional which spans all organisation functions and it begins with the top executives understanding, focuses on process improvements and instils a structured approach to change, highlighting people management and development (AI-Mudimigh, 2007).

In this context, process alignment has captured the way organisation managed its processes and it's institutional so that it could pursuit organisation goals. While people involvement involved executive commitment and employee involvement with objective to blend it management processes (Ya-Hui Lien et al., 2006). Based on the above discussion, it is noted that business processes is relevant to this study. From the operational and organisational perspectives it contributes to performance and sustained competitive advantage through the connection between people and process. Therefore, in this context, business processes is appropriate to act as the driver to the innovation process. In line with Löfsten (2014) mentioned that the link between business processes leads to the innovation will maximise the market value chain. Considering the above explanation and definitions, the definition of business processes for this study is a set of connected activities between people and process which will drive innovation process into creating innovation outcome.

Research Framework and Hypotheses

This section presents proposed research framework of the study.



Figure 1: Proposed research framework

H1: Leadership has a significant positive role on firm performance of pharmaceutical firms in Indonesia.
H2: Managerial levers have a significant positive role on firm performance of pharmaceutical firms in Indonesia.
H3: Business Processes have a significant positive role on firm performance of pharmaceutical firms in Indonesia.

METHODOLOGY

Research design is a procedure plan to indicate how the research process will be undertaken, structured and arranged so that it could finally answer the research questions. There are several steps involved in the research design for this study. It requires researcher to determine research process from the types of investigation proposed,

data collection process, types of respondents, selection of respondents, data analysis and the how findings is presented. This study uses the self-administered questionnaire (mail survey) as the main technique for data collection. The study focuses on pharmaceutical firms in Indonesia. In this context, unit of analysis selected is organisation (company) where data was collected from the targeted respondent from the Chief Executive Officer, top management and executive level involved in implementing innovation. They were chosen since their role involved direct or indirectly in the innovation activities of their organisation. This study used PLS software for analysis of data.

ANALYSIS AND DISCUSSION

Analysing the data and testing the hypotheses requires several statistical techniques. This study uses the PLS for analysis of data.

Assessment of Measurement Model

The measurement model specifies the relationship between the indicators and the latent construct they are

intended to measure. Assessment of the measurement model requires examining two types of validities: convergent validity and discriminant validity (Chin, 1998). Convergent validity indicates the degree to which theoretically similar constructs are highly correlated with each other. Alternatively, discriminant validity indicates the degree to which a given construct is different from other constructs. Collectively, these two validities provide some evidence regarding the goodness of fit of the measurement model. In order to examine the reliability of construct, Cronbach's alpha is commonly used to assess the internal consistency between items in a construct. The Cronbach's Alpha is ranged from 0 to 1. However, the acceptable reliability measure is recommended to be higher than 0.7 in order to consider the construct. Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards (Hair, Ringle, & Sarstedt, 2013). Based on the standards recommended by (Fornell & Larcker, 1981), discriminant validity of the scales is satisfied when the square root of the average variance extracted (AVE) values from the component are greater than the variance any of the intercomponent correlations.



Figure 2. Measurement Model Assessment

	TABLE 1. Values of alpha, CR and AVE				
Sr#	Constructs	alpha	CR	AVE	
1	BP	0.811	0.870	0.575	
2	FP	0.845	0.891	0.622	
3	Led	0.829	0.876	0.586	
4	ML	0.753	0.828	0.596	

Table 2 presents that the "square root of AVE" for the investigation of Validity of constructs.

TABLE 2. Discriminant Validity							
Sr#	Constructs	1	2	3	4		
1	BP	0.759					
2	FP	0.670	0.789				
3	Led	0.625	0.727	0.766			
4	ML	0.775	0.707	0.696	0.700		

Structural Model

With a satisfactory measurement model (inner model), the study progressed to test the structural model,

including the estimates of the path coefficients which refer the strength of the relationships between model constructs. The results of structure model are given in Table 3.



Figure 3. Structural Model Assessment

ABLE 3. Structural Model Assessment ((Direct Results)
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	(β)	(STDEV)	T Statistics	P Values
Led -> FP	0.420	0.056	7.491	0.000
ML -> FP	0.246	0.087	2.844	0.005
BP -> FP	0.217	0.083	2.607	0.009

To test the specific hypotheses proposed in the research model, the t-statistics was evaluated for the standardized path coefficients by running bootstrap with 300 resamples. Findings show that Leadership component of innovation has positive and significant association with firm performance of pharmaceutical companies in Indonesia. The p-value 0.000 exemplified that H1 is accepted at 1% level of significant. This study also found that managerial levers also have positive and significant relationship with firm performance in Indonesia. According the p-value 0.005 H2 also accepted on statistical ground. The path coefficient between Business Processes and firma performance is showing the positive

relationship with a value of β = 0.217 and it was significant (p < 0.05). It indicated that H3 is also accepted.

CONCLUSION

The basic objective of this study was to investigate the relationship of innovation capabilities (Leadership, Managerial levers and Business Processes) with firm performance of pharmaceutical firms in Indonesia. To check the proposed relationship among variables, quantitative research approach was carried out and data was collected via questionnaire. The collected data was analysed by using PLS software. The result indicated a significant relationship between innovation capabilities

with firm performance of pharmaceutical firms in Indonesia. The result suggests that for better firm performance of pharmaceutical sector particularly in Indonesia, the implementations of innovative capabilities are very important. From the findings, it can be concluded that for the pharmaceutical industry in industry to sustain its performance, it must continue to invest in innovative capabilities for better performance. The results of this study provide the necessary insights to enrich the current literature regarding firm performance of pharmaceutical firms in Indonesia in the light of innovation capabilities.

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