

The Influence of Spending and Expenditure on Buying R&D on Innovation Performance in the Manufacturing Companies of Thailand

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The purpose of the current study is to explore the links among the spending and expenditure on buying R&D on innovation performance in the manufacturing companies of Thailand. The data was collected from the employees of the manufacturing companies who are related to the R&D department through questionnaires. This data was analyzed with the help of PLS-SEM that is an effective tool for data analysis. The findings show that spending on R&D has a positive link with the innovation performance of the manufacturing companies. The results also show the direct link of expenditure on buying R&D and innovation performance in the manufacturing companies of Thailand. These outputs are suitable for the employees of the manufacturing companies and the regulators that they should emphasize on the spending and expenditures of R&D in the organization that is necessary for the high innovation performance in the organization.

Key words: *Spending on R&D, Expenditure on Buying R&D, Innovation Performance, Manufacturing Companies.*

Introduction

The most recent twenty years had viewed a developing number of concentrates on understanding and modernization, to a particular focus on issues of execution at the little scope, or enormous scope stages. Investigations of development action regularly recognize item and procedure advancement. Inside these kinds of general development exercises, firms likewise are probably going to have explicit goals. Item targets may incorporate objectives, for example, the advancement of a new item or the improvement of a current item (Zhang, Shu, Jiang, & Malter, 2010). Procedure destinations may incorporate objectives, for example, a decrease in work costs or improved assembling adaptability have utilized the term 'specialized objectives' to allude to these progressively explicit kinds of advancement targets, which are the focal point of this investigation. In their development exercises, firms likewise may look for data from an assortment of sources.

This study is worried about the examination of various wellsprings of knowledge and their effect on development execution. The overviews in the US and Europe, separately, have recorded the wide scope of information sources utilized in advancement at the business level. The information sources in these reviews incorporate the company's own modern Research and development, different firms in a similar industry, clients, providers, college inquire about, the government investigates labs and offices, and expert and specialized social orders (Xie, Huo, & Zou, 2019). So also, our examination centers around sorts of information sources that are associated with various pieces of the worth chain or movement framework. Early research contended that because the probability of advancement achievement is exceptionally dubious, firms could improve the chances of development accomplishment by utilizing what named an 'equal way procedure' of using a wide range of approaches in development action.

All the more as of late, have underscored the advantages for the development of leading different equal quests, a couple of scientific models have investigated an equal way to deal with development. In these 'testing' models, the potential for development, or mechanical chance, is described as a conveyance of estimations of advancement results. At the point when a firm attempts development movement, it doesn't know early which advancement result it will draw from the appropriation. Among such sources are: Research and development did by different associations and purchased in by the venture; coordinated efforts on Research and development with outer firms and foundations; and the exchange of innovation-related knowledge between units of a similar organization (Walker, Damanpour, & Devece, 2011; Saengchai, Pamornmast, & Jermittiparsert, 2019; Jermittiparsert & Sriyakul, 2020). Distinctive knowledge sources have an assortment of attributes that have an orientation on their relative effect on development execution, and therefore on the translation of our outcomes. Consequently, we will quickly examine their fundamental qualities in the

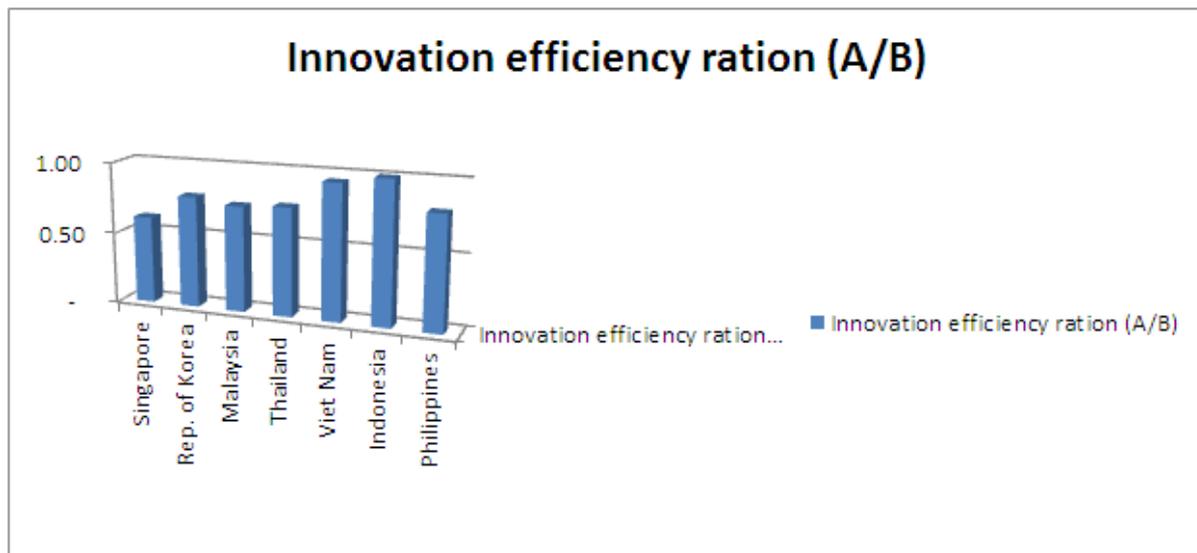
following sub-area, before building up the important theories Externalization. The inspecting models apply to development destinations in an accompanying way. A chief faces vulnerability about a definitive result when concluding whether to seek after a specific goal (Tortoriello, 2015). The result of development is expanding in the number of destinations because of the probability of getting a good draw (a productive target) from a conveyance of settlements increments as the quantity of draws increments.

On account source, the careful distance link; on account of Source, there is legally binding cooperation, presumably with some value inclusion; and on account of Source, the linkages are possession-based, as the two gatherings in the exchange have a place with a similar organization. Right now, a good draw is one that surpasses a basic incentive above which it is gainful to market advancement. The more prominent the number of draws from the appropriation, the almost certain it is that one of the draws will surpass the basic worth required for commercialization. It might likewise influence how much knowledge is completely moved from the dealer to the purchaser (our venture) of development explicit item, as in Source. The four sources vary likewise as far as geographic degree; explicitly, the three exchange sources have an idea for producing innovation and knowledge in a universal setting (Tödtling, Asheim, & Boschma, 2013). The degree to which endeavors are presented to universal markets and approach knowledge sources situated in different innovation conditions is probably going to impact their development execution. An attribute of significance to our exact outcomes is the particularity of the different sources as far as innovation. Sources (claim age), (purchased in), and (joint effort) are the three most innovative explicit sources; especially because the important inquiries in the CIS make them so.

Table 1: Country-wise performance innovation via knowledge source efficiency

Innovation Index	Singapore	Rep. of Korea	Malaysia	Thailand	Viet Nam	Indonesia	Philippines
Efficiency Ratio	0.61	0.78	0.74	0.76	0.95	1.00	0.80

Figure 1. Percentage of performance innovation via knowledge source



Various countries spend following their achievement in relevant sectors to enhance the growth of such organizations. It is observed that many countries have different aspects of acquiring strategies in different filed of organization. From the above table and graph, it is observed that Indonesia has the most achieving percentage among other countries that have been selected in this study. Singapore has achieved 0.61%, the Korean republic has achieved 0.78%, Malaysia is standing at 0.74%, Thailand is at 0.76%, Vietnam is at 0.95 which is a positive sign of achievement, while the Philippines is at 0.80% where Indonesia has crossed at 1.00%.

Literature Review

The factors used to catch outer wellsprings of knowledge allude to joint effort concurrences with the particular point of creating developments. Purchased in knowledge is additionally development explicit; it alludes to Research and development and the securing of licenses for the utilization of protected innovation (Du, Liu, & Li, 2017). As for Source, the innovation explicitness is lower than that of different hotspots for the accompanying explanation. The inner systems of auxiliaries are created by the organization because of an assortment of goals; running from the area of all or part of the creation procedure to the improvement of business sectors, to the quest for resources or assets. Along these lines, the connection between the different units of the organization is educated by an assortment of destinations and exercises (Taherparvar, Esmaeilpour, & Dostar, 2014). In any case, knowledge move is probably going to have an influence, regardless of whether it isn't the primary explanation for the foundation of the organization's parts or their links. Accordingly, tightening a more noteworthy number of targets expands the likelihood that in any event one of them will have a significant development result. Comparable rationale applies to information sources. It has been related

to and contemplated corresponding to the accompanying issues. The first of these is simply the idea of the information, regarding whether it is unsaid or modifiable. The second is the appropriateness of various wellsprings of knowledge for the move.

The third is the qualities of the beneficiary undertaking; for instance, how amicable and built up its absorptive limit is. Since Research and development upgrades absorptive limit, we would, when all is said in done, expect undertakings with significant levels of in-house Research and development to have the option to get and retain more knowledge through the exchanges from outside the venture itself (Sun, Miao, & Yang, 2017). Under states of vulnerability in regards to the result to singular information sources, the probability of acquiring an ideal draw from a circulation of settlements increments as the number of draws (information sources) increments. By getting to a more noteworthy number of information sources, the firm improves the likelihood of acquiring information that will prompt an important advancement result. This can be viewed as a two-dimensional trademark. In particular, see as a trademark with a twofold measurement, identifying with how much the unit is inserted in both the outside condition and the inner organization arrange (Shatouri, Omar, & Igusa, 2013). Firms may confront an exchange off of profundity and broadness in their development destinations because combined learning is significant for Research and development. What's more, the minimal expense of including an advancement target may increment as the quantity of development destinations increments (Dougherty, 2004). On the off chance that the auxiliary has a significant opportunity to communicate with the nearby condition, it might be in a superior situation to abuse and assimilate neighborhood information. The information sources in these reviews incorporate the company's own modern Research and development, different firms in a similar industry, clients, providers, college inquire about, the government investigates labs and offices, and expert and specialized social orders.

Right now, inside the authoritative structure of the organization's system gets significant for the procurement and spread of information. For instance, the intricacy of dealing with a bigger assortment of destinations may make hierarchical and administrative costs increment (Saint-Paul, 2002). Concerning the possess age wellspring of information, the most settled measure is in-house Research and development. Interest in-house Research and development and the extent of research and development staff are utilized as logical factors of innovation performance in many examinations; in this way, Research and development and components connected to Research and development labs, including their area, have become great factors in the clarification of innovation execution. Further note that because of intellectual variables related to a predominant rationale, successful administration requires imperatives on the measure of key assortment. Subsequently, the expansiveness of advancement goals might be liable for consistent losses. The broadness of information sources likewise might be liable to lessening minimal returns.

As of now referenced, this examination considers three significant wellsprings of knowledge procurement through the exchange from the endeavor. Firms may experience higher peripheral expenses because of the expanded unpredictability of overseeing both the assortment of information and the connections expected to keep up access to these sources. This may incorporate licenses (for example purchased in-licenses), outer Research and development, and Research and development administrations completed for the venture by different organizations (Pearce & Ensley, 2004). Also, the advantages of information recombination from various sources may reduce as the quantity of sources increments. For instance, show that it turns out to be progressively hard to join mechanical parts when the quantity of cooperation's among segments develops. Since the 1980s, there has been proof of quick development in between firm Research and development collusions. Different examinations have caught the importance of cooperation in knowledge and innovation age. It could be contended that Source 3 falls inside possess age information because the venture puts assets.

Thinking about an exchange, the study is expecting communitarian understanding prompts the foundation of a genuinely free research unit far beyond what as of now exists inside the reviewed endeavor (Oke, Prajogo, & Jayaram, 2013). The effect on the performance of Source (helpful concessions to innovation) is tried. For example utilizing different units of the organization to which the endeavor has a place, on the presumption that there is the trade of knowledge between units of a similar organization promoting innovation. The conceivable effect on innovation performance of inside organization systems is caught There is some proof that the geographic setting is its area, nation, or the global condition is of importance for both the age and the exchange of information. Existing exploration underpins this view found that both universal decent variety and passage mode sway on mechanical learning and execution. The geographic setting has more extensive development suggestions for organizations and nations. An organization whose system of backups spreads over numerous nations may have more noteworthy learning open doors in general (Mothe & Thi, 2010). In the hypothesis of global exercises, the TNC is seen as a vital leader effectively trying to put resources into areas that are helpful for development.

This recommends solid nearby economies are probably going to draw in speculation from TNCs and that outside direct venture may for sure be persuaded by the craving to receive rewards from the innovation condition in the host nation. There are, thusly, small scale and full-scale area impacts from knowledge move, especially in the global setting, with significant approach suggestions. Furthermore, explicit subjective inclinations influence administrative dynamics. For instance, the accessibility heuristic, whereby individuals depend on data that is effortlessly recovered, will make supervisors depend on data with which they are generally well-known (Mol & Birkinshaw, 2009). Concerning Source, the watched

endeavor may have innovation communitarian concurrences with organizations situated in a similar nation in which it works as well as with foundations found abroad. Generally, the development in the quantity of TNCs in the course of the most recent couple of decades has happened pair with development in cross-outskirt collaboration. As for intra-organization moves, the organizations' backups can be situated inside a solitary nation or spread over a few ones.

What's more, the modification and securing heuristic, whereby individuals make gauges by altering an underlying worth, make a propensity toward 'outlandish good faith in the assessment of the probability that an arrangement will succeed' (Martín-de Castro, Delgado-Verde, Navas-López, & Cruz-González, 2013). At the point when applied to advancement, the alteration and tying down heuristic recommends that leaders will disparage the innate vulnerability of development results, and in this way won't search comprehensively enough. The accessibility heuristic, prevailing rationale and intellectual requirements on search likewise recommend that organizations are probably going to look barely in framing development targets and sourcing information. To check these propensities, the significance of expansiveness recognized in the testing models turns out to be considerably increasingly notable. This proposes the cooperation between claim age and moves sources emphatically impacts on innovation performance far beyond its immediate impacts. Right off the bat, observational proof demonstrates an integral connection between in-house Research and development and purchased in Research and development.

In an investigation of Belgian innovation overview information, find that: ventures will, in general, take part in-house Research and development and purchase in Research and development simultaneously, and this prompts prevalent development performance contrasted and participating in it is possible that either (Luo & Liang, 2016). Also, and as opposed to our desires, discover a substitution impact between in-house Research and development and joint effort on innovation. As per, vertical innovation joint effort could build the capacity of a firm to enhance and make esteem since it turns out to be progressively mindful of clients' needs and desires. Also, including clients in the early periods of innovation altogether decreases the chances of being developed and improve the probability of innovation achievement. Client joint effort in the innovation procedure could likewise impact thought age, item idea improvement, model testing, and market dispatch, prompting development achievement. Another part of vertical innovation coordinated effort concerns teaming up with qualified clients, that is, lead clients (Lin, Sun, Marinova, & Zhao, 2018). This gathering of clients is normally precursors concerning the items they use, and could consequently give one of the kind bits of knowledge basic to the interior innovation process. What's more, there are situations when clients have built up their items that makers have later imitated effectively.



Along these lines, guaranteeing client and client inputs assists firms with creating modified and industrially practical items. Firms may likewise co-develop items with specific clients and clients, for example, on account of open source programming innovation. In any case, there are disadvantages with vertical innovation joint effort as well. For instance, firms that follow their clients also intently may lose their upper hand. In any case, the additions exceed the downsides, and we propose the accompanying theory. Regarding vertical innovation joint effort, maybe most obviously, lead clients might be basic to accomplish radical development by illuminating the firm about the completely new item and administration choices, yet client inclusion, by and large, seems connected to gradual innovation. For instance, utilizing client input and client communication for improving the present items and administrations, this could be clarified by understanding the dangers related to vertical innovation joint effort. As indicated by, regularly, portions of clients' bits of knowledge are lost in the incorporation procedure, which implies that a firm may not comprehend those necessities effectively, indiscriminately relying upon clients' requests, character, and perspectives may likewise constrain the degree of imaginativeness, and wind up creating items for a specialty advertise (Kang & Kang, 2009).

Additionally, as clients who are engaged with the innovation procedure to a great extent depend on their experience, they must be ready to ponder how to improve the items they know about, as opposed to attempting to give contributions to creating radical items. Even innovation joint effort alludes to teaming up with accomplices that are not part of the worth chain of a specific SME. These linkages could incorporate accomplices from comparative or different ventures, for example, contenders or no contenders, and they can be enormous firms or different SMEs (Harrison, Jaumandreu, Mairesse, & Peters, 2014). Framing Research and development joint effort with noncompetition firms is normally simpler because of the chance of creating win coordinated effort as the two entertainers could see the benefit of brushing assets and skills to create inventive items. SMEs may think that it's appealing to start a hazard and income imparting consent to accomplices across businesses as the expense of imaginative improvement typically will, in general, be restrictively high for SMEs contrasted and their bigger partners that can support enormous Research and development units.

In the examination, a mechanical joint effort with contending firms can be mind-boggling and hazardous, yet if teaming up firms can recognize shared objectives, the probability of utilizing innovative innovation through outside help can increment altogether (Goh, 2005). Additionally, when a contending accomplice firm is from the equivalent or comparable industry, it could encourage the entrance to and understanding of unmodified knowledge e prompting development achievement. What's more, due to the ever-expanding complex nature of innovative items, SMEs may think that it's staggering to deal with Research and development exercises without anyone else. Subsequently, shaping coordinated effort with

contenders as well as noncompeting firms to secure and use from their innovation capacities could be a gainful system. SMEs could profit by investigating imaginative innovation and commercialization openings with other little settled firms as they can mutually enter new markets and considerably improve their odds against bigger contenders. Right now, results allude just to participation with colleges, business labs, open research associations, and consultancies; and their investigation depends on Spanish overview information. The creators propose that this outlandish finding is connected to nation explicit variables (Fu & Zhang, 2011).

An extra yet inconsequential motivation to seek after broadness of information sources has to do with joining correlative information. Whereas, the previous raises an issue concerning collaboration since it recommends that development performance and levels of Research and development impact the probability of participation. We examine how this issue is tended to in the accompanying segment on approach and information. At long last, undertakings with greater importance look to abuse development explicit focal points through universal markets, and one method for doing this is by setting up backups in remote nations (Fernando & Wah, 2017). Along these lines, contended that greater development execution is the determinant for spreading an organization arrange. Nonetheless, this contention alludes to the organization all in all, not to the single venture. Since advancement frequently results from information recombination, having a more noteworthy number of correlative wellsprings of information could improve development achievement.

We locate that, as opposed to the instance of intra-organization sources, on account of outer joint effort; the global measurement isn't significant for innovation execution. These outcomes show two things. Right off the bat, universal outside joint efforts and, surely, outer coordinated effort by and large are less effective in converting into development performance contrasted and worldwide inside systems. Also, fewer endeavors utilize universal coordinated effort on innovation contrasted and cooperation at the national level, and with worldwide inward systems (Eisenbeiss, van Knippenberg, & Boerner, 2008). This outcome might be clarified by the way that the trading of knowledge across nations inside the organization might be progressively compelling because undertakings having a place with the equivalent TNC share the equivalent authoritative culture; additionally, exile programs secure eye to eye trades. Low degrees of participation movement on innovation are found all through the UK reviews. Issues identified with the fittingness of the aftereffects of joint research may likewise influence the accomplishment of coordinated effort. Based on the mentioned above literature, this study formulates the following hypotheses:

H1: Spending on development and research is significantly positive linked with innovation performance in the manufacturing of Thailand.

H2: Buying development and research expenditure by the enterprise is significantly linked with innovation performance in the manufacturing of Thailand.

Research Methods

The purpose of the current study is to explore the links among the spending and expenditure on buying R&D on innovation performance in the manufacturing companies of Thailand. The data was collected from the employees of the manufacturing companies who are related to the R&D department through questionnaires. This data was analyzed with the help of PLS-SEM that is an effective tool for data analysis. The questionnaires method of data collection have following steps, firstly the permission of data collection is required that is obtained from the relevant authorities, secondly, a person visit is required that was conducted and distributed the 450 questionnaires, another personal visit is required that is also conducted after 20 days of the first visit and collect the 310 questionnaires that are around 68.89 percent response rate. The variables that are used in existing study have total 47 items out of the 10 are related to the innovation performance (IP) that is the main variable, 25 items are linked with the spending of R&D (SRD) that is the first predictor and 12 items are associated with the expenditure on buying R&D that is the second independent variable. These variables are mentioned in Figure 2 given below:

Theoretical Framework

Figure 2. Theoretical Framework



Findings

The findings include the reliability that is checked by using the Alpha and composite reliability (CR) and both are higher than 0.70 and show that the reliability is valid. In addition, the outcomes also show the convergent validity that is checked by using the

loadings and AVE and the figures show that both are larger than 0.50 and valid the convergent validity. These values are stated in Table 2.

Table 2: Convergent Validity

Constructs	Items	Loadings	Alpha	CR	AVE
Innovation Performance	IP1	0.581	0.920	0.934	0.588
	IP10	0.787			
	IP2	0.765			
	IP3	0.843			
	IP4	0.646			
	IP5	0.812			
	IP6	0.797			
	IP7	0.780			
	IP8	0.814			
	IP9	0.802			
Spending on R&D	SRD1	0.833	0.962	0.966	0.558
	SRD10	0.804			
	SRD11	0.707			
	SRD12	0.832			
	SRD13	0.780			
	SRD14	0.758			
	SRD15	0.822			
	SRD16	0.781			
	SRD17	0.822			
	SRD18	0.806			
	SRD19	0.802			
	SRD2	0.779			
	SRD20	0.707			
	SRD21	0.776			
	SRD24	0.760			
	SRD25	0.816			
	SRD3	0.422			
	SRD4	0.470			
	SRD5	0.482			
	SRD6	0.476			
SRD7	0.837				
SRD8	0.821				
SRD9	0.823				
Expenditure on Buying R&D	EBRD1	0.782	0.930	0.933	0.540
	EBRD10	0.724			
	EBRD11	0.728			
	EBRD12	0.640			
	EBRD2	0.664			
	EBRD3	0.651			

	EBRD4	0.780			
	EBRD5	0.705			
	EBRD6	0.815			
	EBRD7	0.698			
	EBRD8	0.825			
	EBRD9	0.773			

The discriminant validity describe the correlation among the constructs and the first method to test the discriminant validity is Fornell Larcker and the figures of this estimation show that the link with variable to variables itself is higher than the link of variable to another variable that means no high correlation among the variables and these figures are mentioned in Table 3.

Table 3: Fornell Larcker

	IP	SRD	EBRD
IP	0.767		
SRD	0.540	0.747	
EBRD	0.380	0.376	0.735

The discriminant validity describes the correlation among the constructs and second method to test the discriminant validity is cross-loadings and the figures of this estimation show that the link with variable to variables itself is higher than the link of variable to another variable that means no high correlation among the variables and these figures are mentioned in Table 4.

Table 4: Cross-loadings

	IP	SRD	EBRD
IP1	0.581	0.307	0.362
IP10	0.787	0.480	0.303
IP2	0.765	0.488	0.310
IP3	0.843	0.446	0.300
IP4	0.646	0.271	0.282
IP5	0.812	0.455	0.321
IP6	0.797	0.393	0.246
IP7	0.780	0.404	0.245
IP8	0.814	0.440	0.272
IP9	0.802	0.390	0.277
SRD1	0.477	0.833	0.282
SRD10	0.454	0.804	0.291
SRD11	0.341	0.707	0.249
SRD12	0.453	0.832	0.307

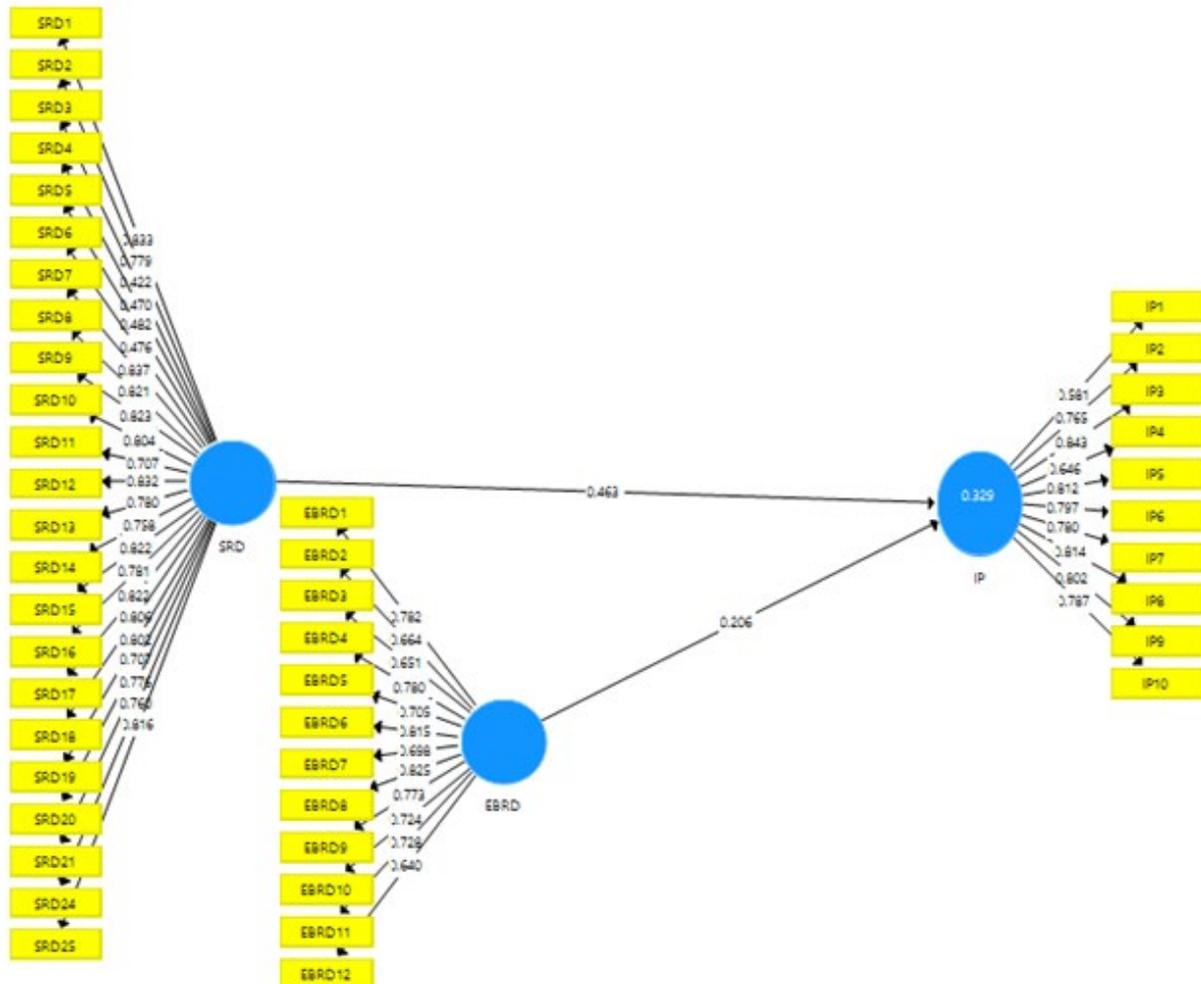
SRD13	0.389	0.780	0.272
SRD14	0.407	0.758	0.306
SRD15	0.401	0.822	0.242
SRD16	0.304	0.781	0.210
SRD17	0.464	0.822	0.332
SRD18	0.473	0.806	0.309
SRD19	0.457	0.802	0.288
SRD2	0.299	0.779	0.207
SRD20	0.354	0.707	0.248
SRD21	0.393	0.776	0.272
SRD24	0.402	0.760	0.301
SRD25	0.401	0.816	0.241
SRD3	0.287	0.422	0.310
SRD4	0.388	0.470	0.212
SRD5	0.280	0.482	0.326
SRD6	0.263	0.476	0.312
SRD7	0.463	0.837	0.284
SRD8	0.453	0.821	0.301
SRD9	0.466	0.823	0.342
EBRD1	0.203	0.149	0.782
EBRD10	0.117	0.074	0.724
EBRD11	0.095	0.121	0.728
EBRD12	0.096	0.141	0.640
EBRD2	0.421	0.485	0.664
EBRD3	0.434	0.488	0.651
EBRD4	0.201	0.157	0.780
EBRD5	0.263	0.197	0.705
EBRD6	0.221	0.189	0.815
EBRD7	0.261	0.194	0.698
EBRD8	0.225	0.214	0.825
EBRD9	0.143	0.165	0.773

The latest way to test the discriminant validity is the Heterotrait Monotrait (HTMT) ratio and the figures are less than 0.90 and this estimation show that the link with variable to variables itself is higher than the link of variable to another variable that means no high correlation among the variables and these figures are mentioned in Table 5.

Table 5: Heterotrait Monotrait Ratio

	IP	SRD	EBRD
IP			
SRD	0.562		
EBRD	0.323	0.306	

Figure 3. Measurement Model Assessment



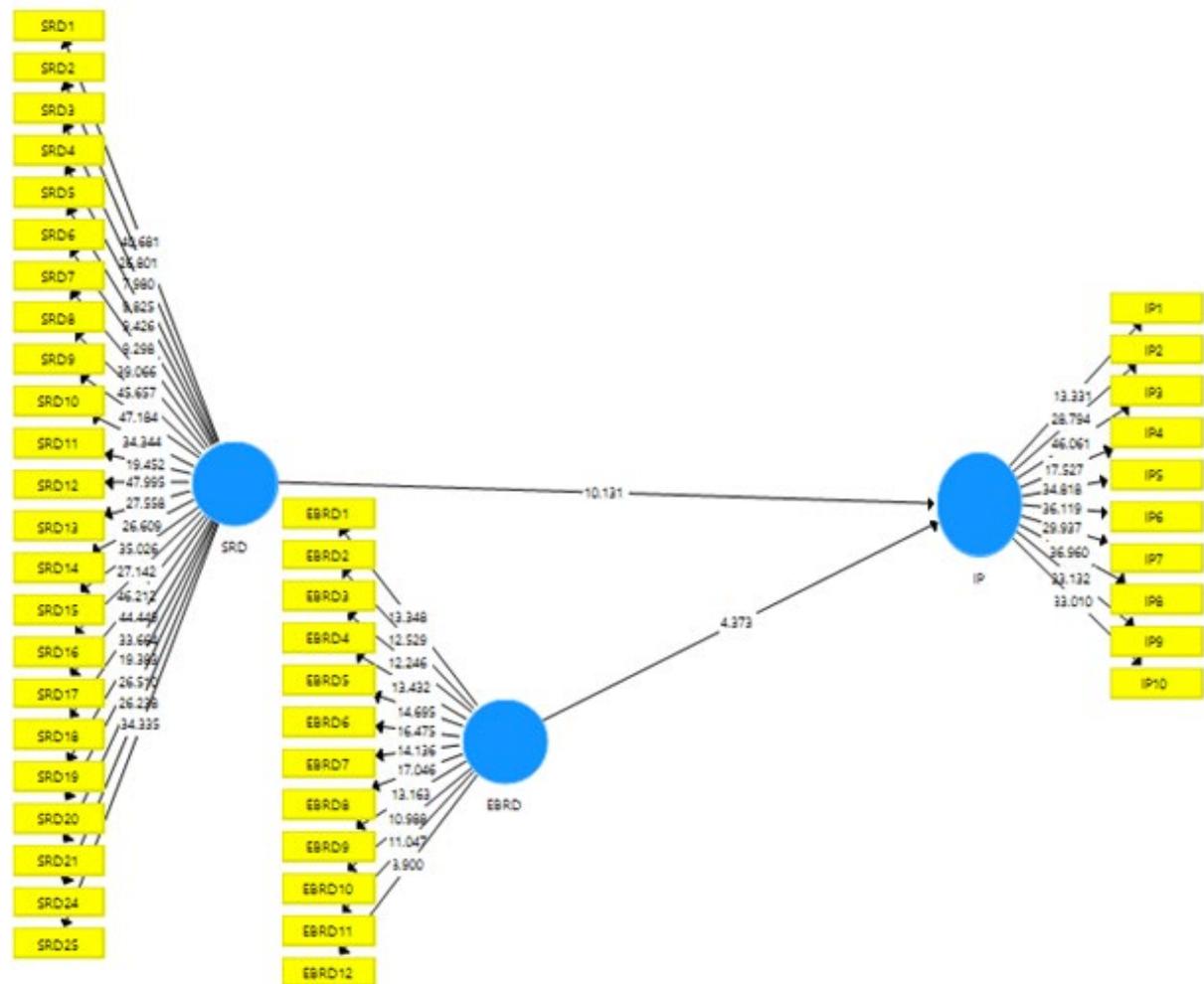
The path analysis shows the hypotheses testing and the findings show that the positive link among the spending of R&D and innovation performance because the sign is positive with beta and link is also significant because the t values are larger than 1.64 while probability values are less than 0.05 and accept the H1 and one unit increase in spending of R&D, the innovation performance will also increase by 0.463 units and vice versa. The results also show that the positive link among the expenditure of buying R&D and innovation performance because the sign is positive with beta and link is also significant because the t values are larger than 1.64 while probability values are less than 0.05 and accept the H2 and

one unit increase in expenditure of buying R&D, the innovation performance will also increase by 0.206 units and vice versa. The regression results are shown in Table 6.

Table 6: Path Analysis

	Beta	S.D.	t-values	p-values	L.L.	U.L.
SRD -> IP	0.463	0.047	9.903	0.000	0.387	0.538
EBRD -> IP	0.206	0.050	4.158	0.000	0.131	0.299

Figure 4. Structural Model Assessment



Discussions

The findings show that spending on R&D has a positive link with the innovation performance of the manufacturing companies. The results also show the direct link of expenditure on buying R&D and innovation performance in the manufacturing companies of Thailand. These results are also similar to the past studies finding that also exposed the positive nexus among the spending on R&D and innovation performance of the organization. These outputs are



suitable for the employees of the manufacturing companies and the regulators that they should emphasize on the spending and expenditures of R&D in the organization that is necessary for the high innovation performance in the organization.

Conclusion

The study concluded that the organization in Thailand spend a quite handsome amount on the R&D of the organization that is the reason the organization in Thailand is practicing effective innovation activities in the organization that improves the business performance of the institution in the country of Thailand. These outputs are suitable for the employees of the manufacturing companies and the regulators that they should emphasize on the spending and expenditures of R&D in the organization that is necessary for the high innovation performance in the organization.

Limitations and Future Directions

The limitations include that this study ignored the mediation as well as moderation analysis and suggested to the future studies that they should take the variables as mediators or moderators in their study. In addition, this study also ignores the other sector than the health and also takes only one country into the analysis and future studies should incorporate these points into their studies.

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