

The Influence of Synchronous Acceptance of Scientific and Governmental Innovation, Investment in High Scientific Information and R&D Reserve on Production-Oriented Innovation Presentation in SMEs of Thailand

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ABSTRACT

This study objective includes the examination of the influence of synchronous acceptance of scientific and governmental innovation, investment in high scientific information and R&D reserve on production-oriented innovation presentation in SMEs of Thailand. The research and development related employees are the respondents and gather the data through questionnaires along with the analysis through PLS-SEM. These results show that synchronous acceptance of scientific and governmental innovation, investment in high scientific information and R&D reserve have positive nexus with the production-oriented innovation presentation in SMEs of Thailand. These findings give help to the employees or research and development that they focus on the innovation to enhance the performance of the SMEs.

Keywords: Synchronous Acceptance of Scientific and Governmental Innovation, Investment in High Scientific Information, R&D Reserve, Production-oriented Innovation Presentation.

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INTRODUCTION

In the face of recognizing that solids have exact kinds of innovation plans and ideas within their industrial aims, the innovation text for the SMEs has usually connected developed with the production growth, over studying the roles of the beginning of the fresh goods. On the other hand, in the middle of 342 items checked just 11 plainly included method innovations. The innovation organization text has hardly checked methods innovation, and it has mostly been uncompleted to only the work out of just predicting methods innovators, mainly in bikes with good innovation acceptance. Nor the innovative presentation penalty of accepting methods innovations not the property of the synchronous co-acceptance of method industrial and the governmental innovations have been generally discovering in the text. To the most excellent of our information, there are not past researches by means of CIS data checking methods innovation plan for SMEs and its innovative presentation penalty away from using events lay on actions or the profit of actions from fresh goods. With observe to the text on the financial of the innovation, important discuss be plentiful on accepting innovation presentation by measuring output using, unlike indicators. So, we give attention to our item just on innovative presentation driving from the method innovation plans for two major reasons (Jansen, Van Den Bosch, & Volberda, 2006).

First researches troubled with output and the size of TFP mostly laid their results on action indicators but, in our sight, the method is more making leaning than the actions leaning. So, action numbers and their output events are higher right for measuring good innovation, even though we knew that good and methods alter can be unclear and hard to divide. As methods innovation presentation cannot be careful by an exact share to return. Methods innovation is mainly laid on rate drop or the betterment

of suppleness in the creation. In detail, betterments in the presentation as an outcome of the method innovations may contain increases in capability, class and suppleness, the good reason for the creation methods and the lower of worker and other expenses. Second, more study on methods innovation uses a check approach and thinks that methods are an appositive action that supports good innovation (Damanpour & Evan, 1984).

On the other hand, method innovation also has a creation leaning goal, and this action has a usual low interest in the text. Not a lot is recognized about the method innovation plan carefully as good leaning action meat at high competence. By the measure of the OECD, study issues in the property of methods innovation are required in organize to get a fuller sight of the innovation on the finical system. At in attendance time, just the divide of fresh goods in income is enclosed. In the face of the powerful discuss on the innovation in short firms, their methods innovation plans, determinates, and the presentation penalty are motionless understudy, in the face of credit that SMEs do in detail intensively growth methods innovations, the first point of this item is to check the basis of methods innovation and its goods leaning innovative presentation (Rosenbusch, Brinckmann, & Bausch, 2011).

Innovation is not only about the growth of fresh skills, but it also on the subject of the acceptance and redeveloped trades routine, and the inner government or outer dealings, technical innovation (Fongtanakit, Somjai, Prasitdumrong & Jermisittiparsert, 2019; Jaroengarmsamer, & Jermisittiparsert, 2019; Jermisittiparsert, Sutduean, & Sriyakul, 2019). In common, the observed prove is that hard have a reason to commence no technical advance when they launch technical innovations. In this glow, the other point of this item drawn from the information that, as painted in the

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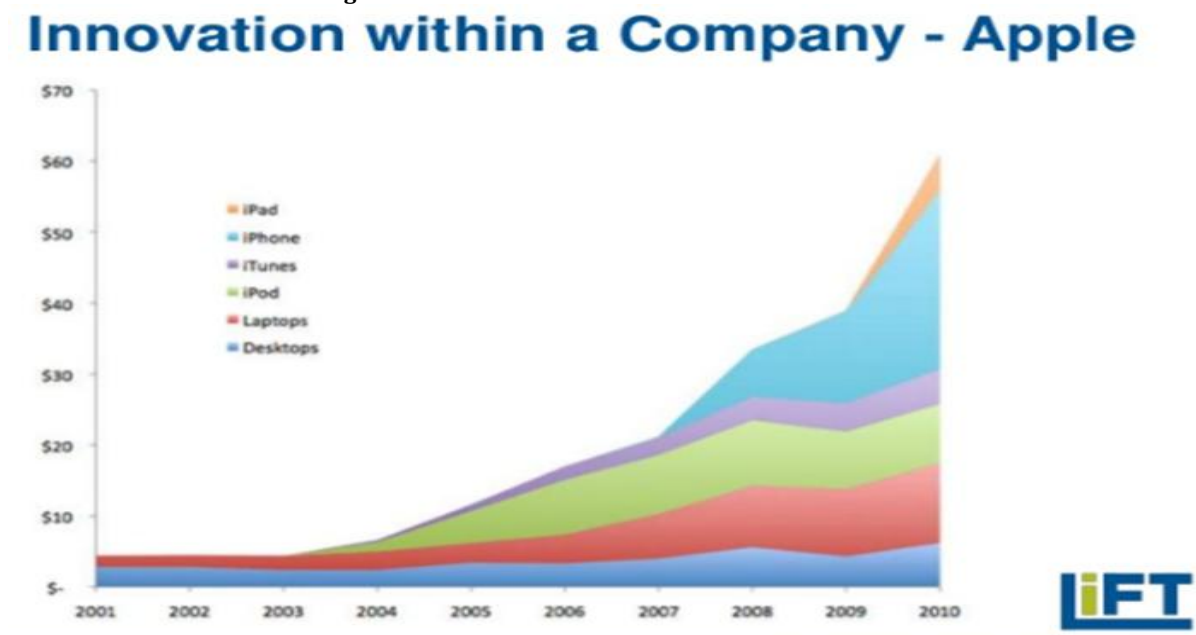
knowledge plan text, the picture of methods growth needs a thought of the balancing connection between technical methods and technical methods and non-technical governmental innovations. By governmental innovation, we pass on to the competition of a fresh governmental process in the hard trade works, the place of the work government or outer connection. Definite authors advised that method innovation may be abstractly within the governmental gap, while the other organize governmental innovation as easily a part of the technical method innovation plan. To the high of our information, most of the researches addresses innovations in that SMEs are only technical leaning, and they have not addressed the possible for the asynchronous co acceptance of the technical and governmental innovation. So, this item brings fresh perspectives to the advance discuss for the SMEs by linking the technical methods and the governmental innovations mode, which made up the second purpose (López-Nicolás & Meroño-Cerdán, 2011).

The usual charities of these items are subsequent. First, these study sheds glow on at rest under the reached topic of the method innovation plan. Second, this item also enlarges the kind of the technical methods and governmental innovation agreement in the SMEs. Third, the research uses the sources lay on sight, both with the connection sight point in organizing to give an academic structure to make our hypotheses. To the high of our information, this is initial item address methods and governmental innovation in bike with the CIS data for the SME firm (Verhees & Meulenber, 2004). The organization of this item is as subsequent. The second part analyses the text, explain the academic give attention and growth of our subsequent hypotheses. The last and third part holds the observed plan, while part four current the outcomes and a conversation. Lastly, the outcomes and implications are offered (Hans Lööf & Almas Heshmati, 2006).

Table 1: Increase in sales due to innovation in Thailand

	Desktop \$ million	Laptop \$ million	I pod \$ million	I tune \$ million	I phone \$ million	I pad \$ million
2001	3	5	0	0	0	0
2002	3	5	0	0	0	0
2003	4	5	5	0	0	0
2004	5	5	8	8	0	0
2005	8	8	10	10	0	0
2006	4	9	12	18	0	0
2007	5	10	15	20	20	0
2008	6	12	19	21	30	0
2009	5	10	18	20	38	38
2010	6	12	20	22	55	60

Figure 1. Increase in sales due to innovation in Thailand



REVIEW OF THE LITERATUTRE

The reserve laid sight viewpoint pressure that hard single inner resources at slightest partly resolve a firm presentation. RBV launch a communication under a firm single place of sources and capacities and its

governmental reserve and extra core jobs (Battor & Battor, 2010). Within RBV, a board-wide of usual, as well as total kind of properties, governmental methods, information capacities, and other possible benefits. Complementarily, the connectional viewpoint that firm

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dangerous sources go further than firm limits and that inner firm joint connection produce relation profits. It is argued that these plans assets produce a crash on the innovation by facilitating information distribution and aggressive learning methods. We lay our research on the RBV move toward the connection outlook to growth our hypotheses (Hans Lööf & Almas Heshmati, 2006).

Prepared Optimization reproduce an inside leaning viewpoint on sustainability, advice to respond the same as things but higher move toward decreeing hard and dangerous by the rash, incremental betterment driven by the proactively pursuing work or agreement. These are the actions typically scientific, stand-alone and limited (Aragón-Correa, García-Morales, & Córdón-Pozo, 2007).

The fight that accepting sustainable common and situation roles is competitively no benefits to the hard has been claimed by the other. Purposefully, the attention of the innovation activities in the ready optimization deceit within the hard limits: the goal for alter is inner. Value drivers contain respond to narrow needs and the chase of a good organization gets by the fresh work acceptance (Koellinger, 2008). Sustainability learning innovation has become most practical when hasty innovation becomes running at the loose and when the odd-on answers incur rates higher than the rate of the method restore. The sustainability result is a fall in the danger per item of the creation, which is gained by using obtainable methods and without co-operating to obtainable trade models (Tsai, 2001).

The innovation methods give attention to the incremental betterment, leaning to a just one problem and connected to the skills-fixes as the sight to descry crash while managing the trades as common. For instance: dipping the power of income use, high ravage controlled or smog pollution control, and recycling it, produces smallness, and using result aids and gears to put together situational thought into the NPD, for the instance, by the dematerialization or re-produce. The request of the gears, in which that there are more and in which choice in reason, hardness, and relief of employ, enables employ sustainable resources and sustainable plan changes and tells them to the fiscal incentive, situational system or the stress of the customers (Tsai, 2001).

Sustainable leaning innovation is rendering personally hard by the need to add diverse information linkage to the fiscal, common, situational consideration: this made the SOI a learning and knowledge face, making the fresh information and information management vital. Firms with the aggressive information management methods can clear these to help SOI and give attention on: clear open information that contradicts sustainability values, rich skill gaps by the education, under attack worker or important knowledge, and integrate different items of the sustainability by the proclaiming plan and monitor agreement (Theyel, 2000).

They need connection in the text of ready optimization is who those are link line labors and directors with the need information to result in alter properly to obey with the legislation and rule. On the other hand, such information does not live within the hard, more importantly in the view to sustainability gears and outer information skilled maybe need to help steer and apply these (Wang & Wang, 2012).

Ready optimization is gainable by mobilizing obtainable innovation capacities. Any past growth innovation

capacity can be a vital ancestor of the SOI capacity. Innovation actions bound in this method can be contact stone toward high firm point sustainability causal to the initial of empowering SOI civilization by the firm. The above situation can be enlarged connections are reframe to give attention to sustainability, for instance by helping the sustainability letter launch open aims at the good point and protecting the connection and drive of line employers (Hogan & Coote, 2014).

Some other notes down that more trades have holed the works of situational management in the logic of ready optimization, but some have badly busy the wider suggestion of the sustainability thoughts. Touching past ready optimization needs the most essential come near that makes innovation most hard and unclear (McDermott & Prajogo, 2012).

RBV Approach to Process Innovation Strategy

Firms are mixed in their practices and plans. This outlook of evolutionary financial completely hysterics the sources laid sight of the hard. This move toward argues that firms show a mixed presentation so that they have diverse repositories of the sources by the limited mobility, lack, hard to copy and a need for ideal substitutes (Makri, Lane, & Gomez-Mejia, 2006). A deeper sight at RBV idea reveal that it's meaning of income or governmental capacities, all the properties, capacities, governmental methods, firm attributes, knowledge, text, information, and the presentation, etc, forbidden by a hard that show the firm to picture of and put into a practice plans that better its effectiveness and competence is not straight connected only to R&D savings. Furthermore, no is the connection laid sight, which advises to an outer income of information that also adds to a hard storehouse of incomes and capacities (Gluch, Gustafsson, & Thuvander, 2009). These outlooks can be balanced with the information laid sight of the dense, which thinks that accumulated knowledge or recognize custom without giving attention importantly on the R&D checks farm the lay of hard information. The type of this information, which is mostly of a clear nature, it a straight connection to a hard-aggressive benefit and presentation. So, we claim that the point of governmental capacities in the trades, both with a hard capacity to with passion sustain and reconfigure its incomes and competencies, will decide the choice to innovate. When addressing the innovation plan, this item advises the exact income and competences, and its combination, as a way of innovation presentation. A firm innovation plan lay on it's to be hand capacities or the information stock. So, firm innovation capacity is largely linked with that innovation plan and the each of the innovation are laid on the store of outer and inner produced incomes and competences (Grawe, Chen, & Daugherty, 2009).

There have been wide studies on innovation in SMEs and on the methods innovation. On the other hand, such documents are mainly controlled to explore the result to launch, or no, method innovation to a certain extent than the analysis of its presentation (García-Morales, Matías-Reche, & Hurtado-Torres, 2008). Study surrounding methods innovation presentation is in the short supply exceptions in the city of Thailand, and on hand, researches do not give attention to short firms (Lanoie, Laurent-Lucchetti, Johnstone, & Ambec, 2011).

With look upon to the main characters of the methods innovation and others are bits of advice to the methods innovation as the employ of the fresh assets tools and the

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works of the knowledge by learning and responsibilities by using. On the other hand, mainly, OECD defines methods growth as the realization of the fresh or importantly high creation or release methods. This contains an important alter in the skills, tools or/and software. In the picky, technical methods innovation is connected to the inclusion of fresh important gear, mothering gear, trades robots or IT gear or the important alive skill, mainly gain from the obtain of the high gear or the computer parts and the software of the computer system (Y. Li, Zhao, & Liu, 2006).

Common agreement exists in the text on the information that methods innovation plan in short firm is more and more strongly connected to the alive technical alter, incorporated into the objective important shape, to a certain extent that too subtle asset in the R&D. in this layer some other indication that the methods innovation is mostly laid by the launch skill, while incorporeal skill effort good innovation (García-Morales, Ruiz-Moreno, & Llorens-Montes, 2007). And some other give the prove that R&D labor is straight connected to the figure of the innovation, to technologies and rate, and fixed with the calculation that these determinants labor short and high firm in a different way, by the detail, that short and the high firms have unstable skills situations and regimes. On the other, the same as above advice those high firms laid on the R&D efforts for their innovative production, whereas short firms widely clear spillovers (Montes, Moreno, & Morales, 2005).

On the other hand the same as, some above give prove that the tendency to connect in the R&D is straightly connected to firm rate and that high firms can attain benefits from the dispersion R&D expenses. Some other provides that R&D costs are high and really connected with the opening of fresh goods, while set important costs raise the chance of the methods innovations. Cutting the past text advises that innovation in the short firms is most lay on the contact to an outer system of the personal information, and low on the R&D, shins serious employees of the alive information (Bossert & medicine, 1998). As a result, our initial hypothesis shapes:

Hypothesis 1: In the method innovation plans of the SMEs, there is a positive association between investment in high scientific information and production-oriented innovative presentation (Otero-Neira, Lindman, & Fernández, 2009).

In the row with the analyses text, as on the top of the documents are show, we wait for that the gaining of the high information and it's governmental mixing each real power the innovation presentation of the methods innovators. Some other images that the recombination as fit as reuse of the recognized work is in the innovation outline worker by the SMEs that does not ways, this recombination jobs by the combining obtainable information in the fresh conducts, by the fake and repeal trade or by the working trade information to behave incremental alter (Lau, Tang, & Yam, 2010).

As the present researches have sharp out, there is no connection between the firm point R&D and methods innovation for the reason that R&D is most connected with good innovation. In detail, the advertising text has usually connected good innovation with helpful R&D and advertising integration. On the other hand, some other points out that the helpful addition of the R&D good growth and advertising is a condition for the innovation victory (Mazzola, Bruccoleri, & Perrone, 2012). In the

picky, some other claims that each of both advertising and scientific R&D is vital for fresh good initial victory. In the other term, R&D is plainly connected to the advertising and good innovation, and not to the method and creation innovation presentation. On the other hand, a second hypothesis can be declared as follows:

Hypothesis 2: In the method innovation plans of the SMEs, there is an association between R&D reserves and the production-oriented innovative presentation (Ho, 2011).

Innovation actions introduced by the methods innovators same as engaging governmental and scientific alters and some other argues that it is rather unclear and hard to divide. The text has over and over again proved that the claim of the skills of the method laid on the altar in the shape and administrative works, governmental innovation actions. The regular over the line of the governmental and scientific methods innovation is also mainly worried in the actions management text, even though most of these texts are laid on the container researches or the exact trades (Calantone, Cavusgil, & Zhao, 2002).

The victory full acceptance of the skills of the method lays on the real-time opening fitting administrative works, so, in the governmental integration thinking, the victory full acceptance of the methods innovations mainly by the acquiring fresh skills for the operations should be balanced by the addition and organization devices if the principle from the method innovations is to be totally defense and captured from the fake ensured (Sok & O'Cass, 2011).

The close connection between the scientific methods and the governmental innovation agreement, painted in the meaning provided by the others, contains two other types but connected actions within the idea of the method innovation, scientific method innovation and governmental method innovation (Yamin, Gunasekaran, & Mavondo, 1999). Scientific methods innovations are fresh basics that are old in the method of the creation and contain prove products and middle products, for instance as melting out machines, trades robots and the IT gear (H. Li & Atuahene-Gima, 2002). Indifference, governmental methods innovation balance scientific methods innovations, but they are clear as fresh ways to manage trades actions. So they are not making up of the scientific size but the organization of the being incomes and job works, for instance, as only in the time creation, complete class management or bend over manufacturing (Darroch, 2005).

The text that gives attention to the knowledge by the result has complete the detail that scientific and government both result in the command for the information required for the fresh innovations, and it gives proof of the synergies of the agreement (Feeny & Rogers, 2003). Lastly, some other argue and draw on the Thailand CIS to position out that governmental innovation is also over and over again accompanied by the fresh scientific methods (Hervas-Oliver, Sempere-Ripoll, & Boronat-Moll, 2014).

On the other hand, the opposite properties of the innovation methods are shown in the RBV. In the plan's management text, the balancing properties are devolved as containing an answer power on a hard innovation. Some other balancing properties as who raise the principle of hard scientific innovations for the reason the detail that mixture of various observed properties

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prevents reproduction and benefits appropriation. Some others also show out that the observed properties sustain aggressive benefits by the creation of reproduction hard (Naranjo-Valencia, Jiménez-Jiménez, & Sanz-Valle, 2016). So, a last or can be the third hypothesis declared as follows:

Hypothesis 3: In the method innovation plans of the SMEs, there is a positive association between the synchronous acceptance of scientific and governmental innovation and production-oriented innovative presentation (Ndubisi & Iftikhar, 2012).

RESEARCH METHODS

This study objective includes the examination of the influence of synchronous acceptance of scientific and governmental innovation, investment in high scientific information and R&D reserve on production-oriented innovation presentation in SMEs of Thailand. The

research and development related employees are the respondents and gather the data through questionnaires along with the analysis through PLS-SEM. The data gathering process includes permission from the relevant authorities then distribute the surveys by personal visit and after fifteen days collect back and use for analysis out of 450 only 320 were used for analysis and the response rate was 71.11 percent. Out of total 54 items that are linked with all variable, 10 items are attached with the main variable such as production-oriented innovation presentation (POIP), 25 items are related to the R&D reserve (RDR), 7 items are attached with investment in high scientific information (IHCI) and 12 items are associated with last predictors namely synchronous acceptance of scientific and government innovation (SSGI). The items and variables are mentioned in the theoretical framework given below:

Theoretical Framework

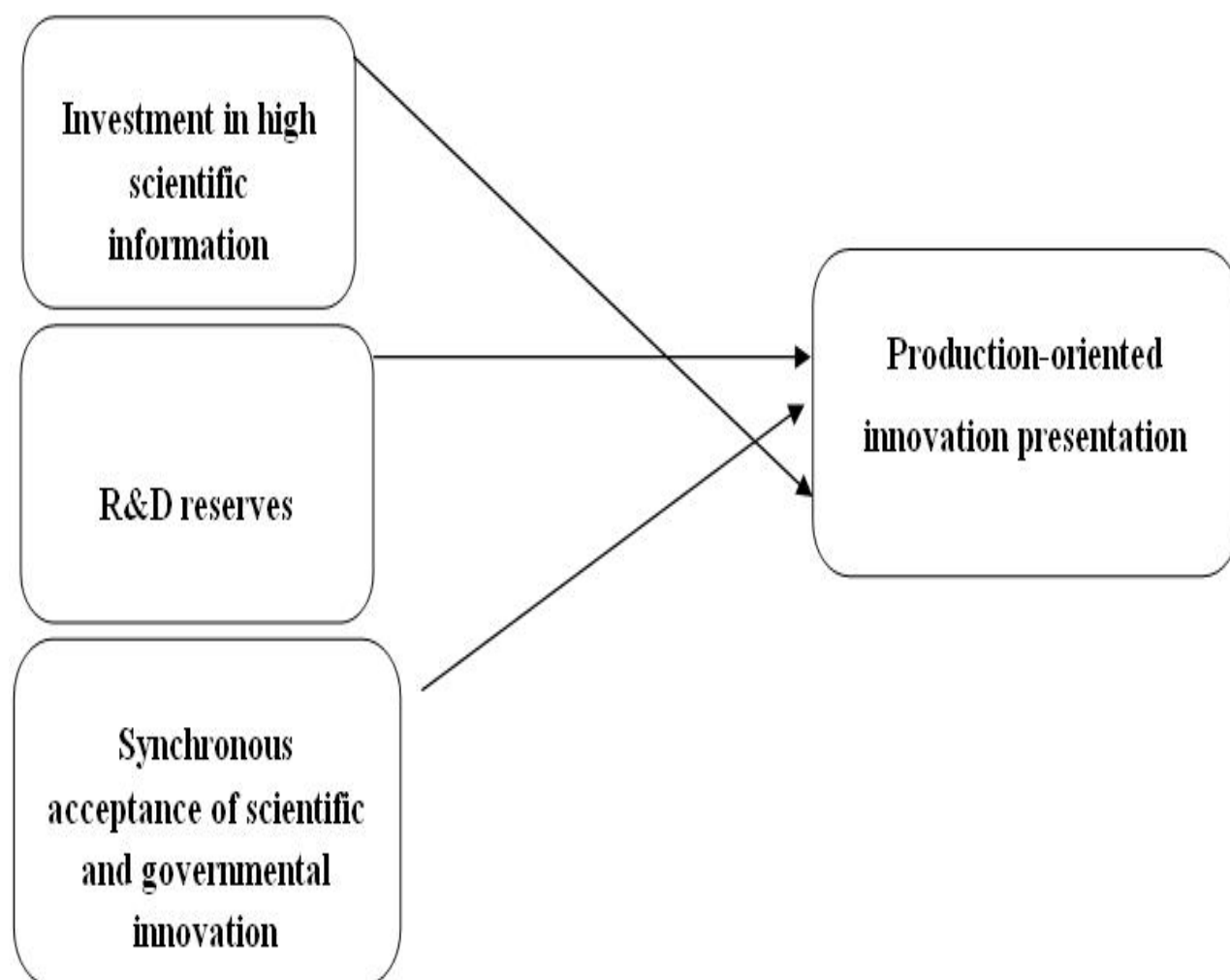


Figure 2: Theoretical Framework

FINDINGS

The convergent validity and reliability firstly are the part of results and given below figures show that the valid reliability along with valid convergent validity because

for reliability Alpha is higher than 0.70 and for convergent validity loadings, CR and AVE higher than 0.50, 0.70 and 0.50 respectively. The given below figure shows the reliability and convergent validity in Table 2.

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Table 2: Convergent Validity

Constructs	Items	Loadings	Alpha	CR	AVE
Production-oriented Innovation Presentation	POIP1	0.577	0.920	0.934	0.588
	POIP10	0.786			
	POIP2	0.766			
	POIP3	0.843			
	POIP4	0.645			
	POIP5	0.811			
	POIP6	0.798			
	POIP7	0.782			
	POIP8	0.815			
	POIP9	0.803			
R&D Reserve	RDR1	0.833	0.962	0.966	0.558
	RDR10	0.804			
	RDR11	0.707			
	RDR12	0.832			
	RDR13	0.780			
	RDR14	0.758			
	RDR15	0.822			
	RDR16	0.781			
	RDR17	0.822			
	RDR18	0.806			
	RDR19	0.802			
	RDR2	0.779			
	RDR20	0.707			
	RDR22	0.776			
	RDR24	0.760			
	RDR25	0.816			
	RDR3	0.422			
	RDR4	0.470			
	RDR5	0.482			
	RDR6	0.476			
RDR7	0.837				
RDR8	0.821				
RDR9	0.823				
Investment in High Scientific Information	IHC11	0.832	0.938	0.950	0.730
	IHC12	0.861			
	IHC13	0.856			
	IHC14	0.821			
	IHC15	0.874			

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	IHCI6	0.874			
	IHCI7	0.862			
Synchronous acceptance of Scientific and Government Innovation	SSG11	0.782	0.930	0.933	0.540
	SSG110	0.724			
	SSG111	0.728			
	SSG112	0.640			
	SSG12	0.664			
	SSG13	0.652			
	SSG14	0.780			
	SSG15	0.705			
	SSG16	0.815			
	SSG17	0.698			
	SSG18	0.825			
	SSG19	0.773			

The Fornell Larcker method of checking the discriminant validity secondly is the part of the results and figures given below show the valid discriminant validity because

all the variable first value is higher than the other values. The given below figure show the Fornell Larcker method in Table 3.

Table 3: Fornell Larcker

	POIP	RDR	IHCI	SSGI
POIP	0.767			
RDR	0.540	0.747		
IHCI	0.414	0.539	0.854	
SSGI	0.379	0.376	0.354	0.735

The cross-loadings method of checking the discriminant validity thirdly is the part of the results and figures given below show the valid discriminant validity because all the

variable first value is higher than the other values. The given below figure show the cross-loadings method in Table 4.

Table 4: Cross-loadings

	POIP	RDR	IHCI	SSGI
POIP1	0.577	0.307	0.194	0.362
POIP10	0.786	0.480	0.334	0.303
POIP2	0.766	0.488	0.372	0.310
POIP3	0.843	0.446	0.353	0.300
POIP4	0.645	0.271	0.238	0.283
POIP5	0.811	0.455	0.330	0.321
POIP6	0.798	0.393	0.303	0.247
POIP7	0.782	0.404	0.350	0.245
POIP8	0.815	0.440	0.344	0.273

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POIP9	0.803	0.390	0.314	0.277
RDR1	0.477	0.833	0.374	0.282
RDR10	0.454	0.804	0.374	0.291
RDR11	0.341	0.707	0.345	0.249
RDR12	0.453	0.832	0.381	0.308
RDR13	0.389	0.780	0.358	0.272
RDR14	0.406	0.758	0.346	0.307
RDR15	0.400	0.822	0.390	0.242
RDR16	0.304	0.781	0.359	0.210
RDR17	0.465	0.822	0.348	0.332
RDR18	0.473	0.806	0.378	0.309
RDR19	0.457	0.802	0.365	0.288
RDR2	0.299	0.779	0.364	0.208
RDR20	0.353	0.707	0.350	0.249
RDR22	0.393	0.776	0.363	0.272
RDR24	0.402	0.760	0.347	0.302
RDR25	0.401	0.816	0.391	0.241
RDR3	0.287	0.422	0.734	0.310
RDR4	0.388	0.470	0.616	0.212
RDR5	0.280	0.482	0.674	0.326
RDR6	0.263	0.476	0.664	0.312
RDR7	0.463	0.837	0.371	0.284
RDR8	0.453	0.821	0.368	0.301
RDR9	0.466	0.823	0.345	0.342
IHCI1	0.345	0.402	0.832	0.304
IHCI2	0.348	0.481	0.861	0.276
IHCI3	0.332	0.443	0.856	0.295
IHCI4	0.303	0.477	0.821	0.301
IHCI5	0.319	0.472	0.874	0.339
IHCI6	0.380	0.485	0.874	0.287
IHCI7	0.424	0.466	0.862	0.315
SSGI1	0.202	0.149	0.160	0.782
SSGI10	0.116	0.074	0.118	0.724
SSGI11	0.094	0.121	0.111	0.728
SSGI12	0.096	0.141	0.126	0.640
SSGI2	0.420	0.485	0.392	0.664
SSGI3	0.433	0.488	0.420	0.652
SSGI4	0.200	0.157	0.166	0.780
SSGI5	0.262	0.197	0.265	0.705
SSGI6	0.221	0.189	0.147	0.815
SSGI7	0.260	0.194	0.274	0.698
SSGI8	0.224	0.214	0.175	0.825
SSGI9	0.142	0.165	0.153	0.773

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The Heterotrait Monotrait (HTMT) ratio of checking the discriminant validity fourthly is the part of the results and figures given below show the valid discriminant

validity because all the values of the ratio are less than 0.90. The given below figure show the HTMT ratio in Table 5.

Table 5: Heterotrait Monotrait Ratio

	POIP	RDR	IHCI	SSGI
POIP				
RDR	0.562			
IHCI	0.437	0.597		
SSGI	0.323	0.306	0.298	

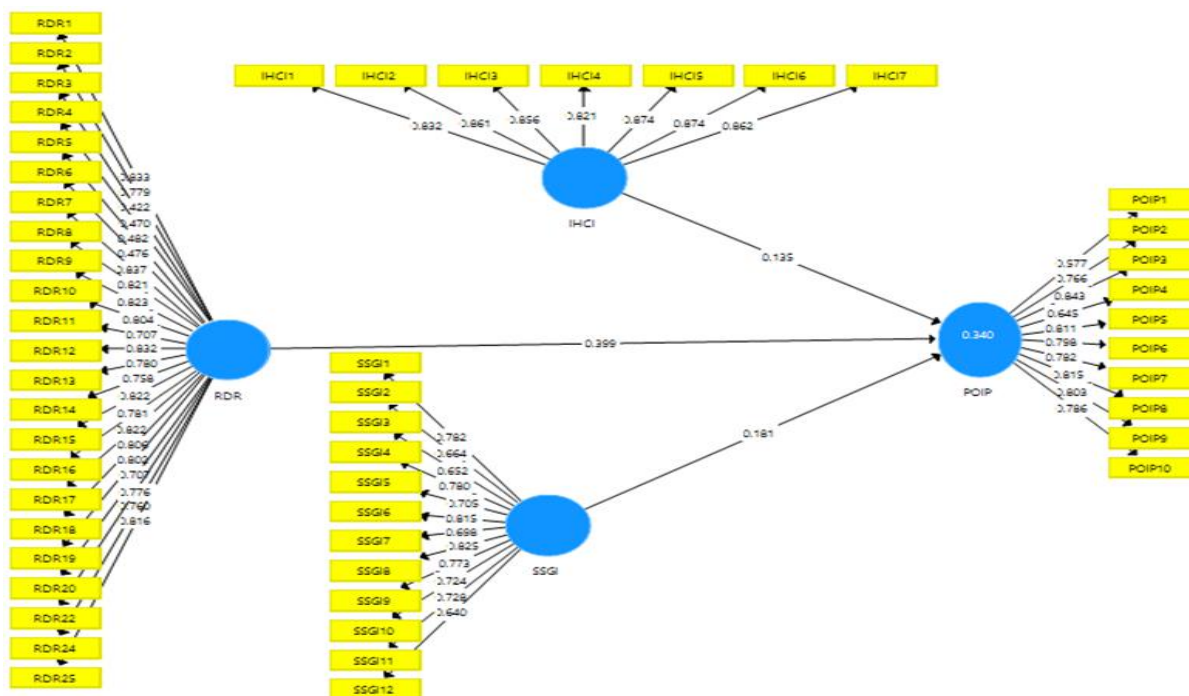


Figure 3. Measurement Model Assessment

The path analysis for the testing of the hypothesis fifthly is the part of the results and beta value with positive sign show the positive links among the synchronous acceptance of scientific and governmental innovation, investment in high scientific information, R&D reserve and production-oriented innovation presentation. Moreover, the links between synchronous acceptance of

scientific and governmental innovation, investment in high scientific information, R&D reserve and production-oriented innovation presentation are significant because t values are more than 1.64 and p values are less than 0.05 and accept the H1, H2, and H3. The path analysis related to the testing of the hypothesis is given below Table 6.

Table 6: Path Analysis

	Beta	S.D.	t-values	p-values	L.L.	U.L.
IHCI -> POIP	0.399	0.066	6.079	0.000	0.295	0.510
RDR -> POIP	0.135	0.071	1.912	0.028	0.014	0.255
SSGI -> POIP	0.181	0.053	3.447	0.000	0.104	0.276

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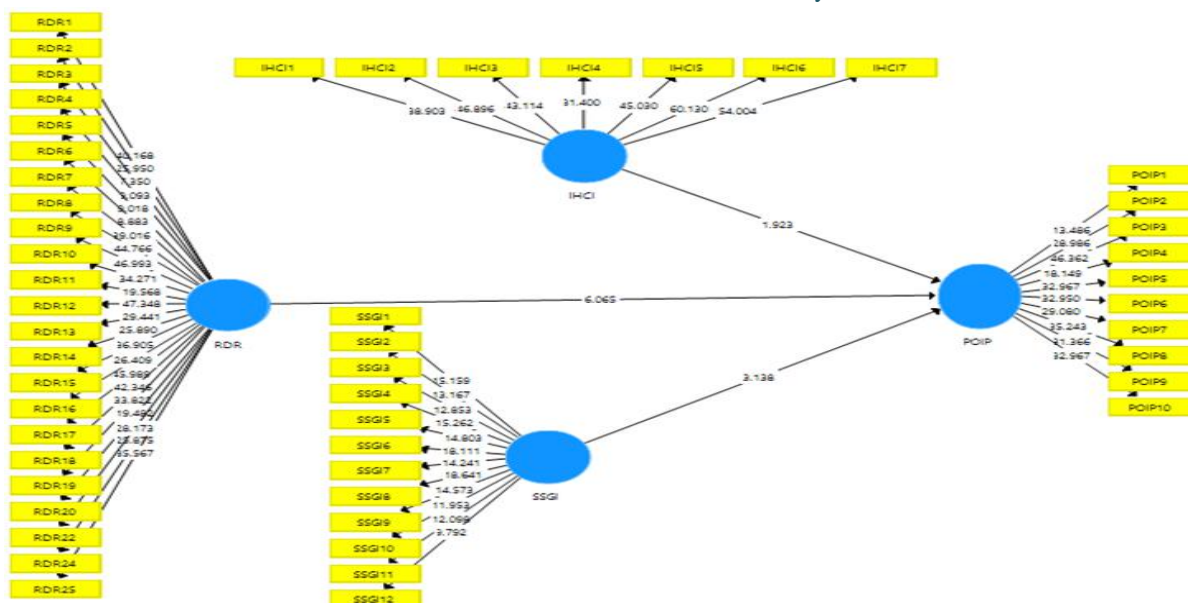


Figure 4. Structural Model Assessment

DISCUSSION

The results show that synchronous acceptance of scientific and governmental innovation, investment in high scientific information and R&D reserve have positive nexus with the production-oriented innovation presentation in SMEs of Thailand. SMEs in Thailand has implemented a high level of innovation in the organization and also maintain the synchronous acceptance of scientific and governmental innovation, investment in high scientific information, R&D reserve in the organization that enhances the production-oriented innovation presentation in the organization. These findings give help to the employees or research and development that they focus on the innovation to enhance the performance of the SMEs.

CONCLUSION

This study concluded that SMEs in Thailand are implemented the high level of innovation in the organization and also maintain the synchronous acceptance of scientific and governmental innovation, investment in high scientific information, R&D reserve in the organization that enhances the production-oriented innovation presentation in the organization.

Limitations and Future Directions

This study has few limitations that include that this study takes only three predictors such as synchronous acceptance of scientific and governmental innovation, investment in high scientific information, and R&D reserve to predict the production-oriented innovation presentation and it is the suggestion for the future studies that they should also include these variables and also add more factors in their analysis.

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