

The Role of Inner Innovation Project, Advance Method Input and Innovation Direction on the Innovation Presentation: Mediating Role of Uniqueness

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Abstract:

The foremost purpose of this literature is to investigate the effects of an inner innovation project, advance method input and innovation direction on the innovation presentation in the private organization in Thailand. The aim also includes the examination of the mediating role of uniqueness among the links of inner innovation project and innovation presentation, advance method input and innovation presentation, and innovation direction and innovation presentation. The questionnaire methods were used to collect the data from the employees of the R&D department of the private sector in Thailand. The Smart-PLS was used to check the validity and hypotheses. The findings indicated that a positive association among the inner innovation project, advance method input, innovation direction, and innovation presentation. The output also includes the uniqueness positively mediates among the links of inner innovation project and innovation presentation, advance method input and innovation presentation, and innovation direction and innovation presentation. These findings give insight to the policymakers that they should be made the policies that enhance the interest of the people in the adoption of innovation that enhance the firm performance.

Keywords: Inner Innovation Project, Innovation Presentation, Advance Method Input, Innovation direction

Introduction

When growing entrepreneurs field their trade ambitions, one fight is mainly worked: No one else is responsible for what we are the subject of to work (Chetthamrongchai & Jermsittiparsert, 2019; Chienwattanasook & Jermsittiparsert, 2019; Sriyakul & Jermsittiparsert, 2019). This fight reflects an extremely engrained trust that in a arrange to be wining in the trade, the industrialist or short trades manager requires to get an innovative border to struggle beside the higher incumbents. Important free enterprise teachers support this idea by disagreeing that innovation is the constitutive part of the free enterprise. In the adding, some plan text purposes that like governments can benefit by adjusting to situations

change quicker than the higher government by the reason of their liveliness, lost hierarchies, and fast management. Furthermore, the common people attribute higher agree to fewer firms investing a great deal in the innovation than higher governments. In the result, an industrialist or short trade's manager is possible to finish that innovation advantages fresh and short firm growth irrespective of the situation (C. López-Nicolás & Á. L. m. Meroño-Cerdán, 2011). However, does guess and observed proof help the common statement that innovation is required an all-time high approach?

Table 1: Innovation Impact on Business Processes

	B. Model/E. Process/P. Performance/Channel	Networking/C. Process/P. System/Brand	Services / C. Experience
Finance	5%	10%	
Process	20%	10%	
Offering	100%	45%	18%
Delivery	20%	18%	10%



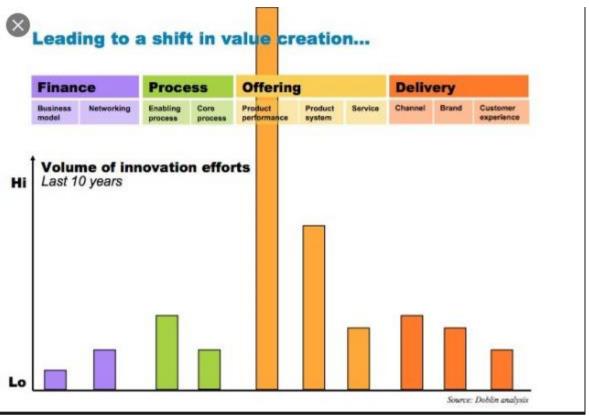


Figure 1: Innovation Impact on Business Processes

In different to text proclaim the helpful aspects of the innovation which regularly focus on the huge firms, large assumption challenges this sight. For the resource-scarce short firms, the property need by the innovation projects can impose their potential. At the same time as higher governments have the source dropping to understand the failure, for lower entities the breakdown of innovation good evokes existential dangers. Moreover, huge governments are further possible to get knowledge with the innovation projects guiding to governmental innovation capabilities. Less important and particularly fresh firms frequently lack this governmental capacity and, so, skill running the danger of winning in the management deeds without the skill (Jansen, Van Den Bosch, & Volberda, 2006).

Shiny on the peril of the innovation, it wants to be wellknown that innovation is a danger loaded with the huge breakdown charge or by less brief are not profitable. Furthermore, experimental research checking the innovation presentation connection regularly current mix result. A mixture of practical studies details that innovations do not power presentation or discover negative act implication of the innovation. For now further study information up effects. The innovation presentations by the reviews study explain prove as 'contradictory' 'inconclusive' 'mixed'. This text, still, is based resting on unplanned description reviews and the commonly refers to large, recognized firms. An orderly study of the improvement presentation relationship within SMEs toward our top information is missing. This is amazing, as amorphous descriptions reviews are able to include sample, amount, stochastic and the exterior force issues and normally

do not permit the quantification of affairs. Moreover, descriptions reviews normally include different cognitive and the researcher come from normative biases. To beat these limits, meta-analysis is a recognized and strong way to scientifically produce answers as a piece of proves based study approach. Prove based study goals to confirm the study answer lay on the aggregation of the observed answers. Meta-analysis is an organized and quantitative way urbanized to add previously observed answers. It fives the chance to decide the strengths of the shortest property and allow the discovery of moderate things. Freshly meta-regressions have been showed to free enterprise text as a shape to guess various control things on the multivariate study (C. López-Nicolás & Á. L. Meroño-Cerdán, 2011).

Follow and prove based study approach, this research gives the opening quantitative aggregation of the observed answers on innovation presentation connection. This is vital, as the rising ground of the free enterprise has to seriously look at the basic pillars it laid on. If innovations do not give rate for the industrialist, problems are lifted or not it is must be possible a basic of free enterprise conjunction. Furthermore, if the innovation just only attributes price in various single free enterprise situations, it must be possible to raised questions whether it must be a part of common conjunction of the free enterprise (Verhees & Meulenberg, 2004). Further than the common connection between the innovation and the presentation, we particularly goal to insert to the text by giving a thorough background accepting of the innovation presentation connection. In further terms, we request to deal with a second, opposite study problem: in that content is



innovation further helpful for the presentation of the little firm?

Approach and the free enterprise students have painted the significance of the relative factors as the contingency. First personal researches also advised that the advanced presentation connection is moderated. Moreover, prima facie differing observed answers as well point out the survival of relative moderators. A Variety of factors must be likely to crash the innovation presentation connection. Possible moderators contain the firm situation and the firm exact factors. Subsequent past text, we describe is the practice of the acceptance of outside or inside generate plans, programs, systems, policies, army and the products that are fresh acceptance the government. We initially study the straight crash of the innovation as a combination of the unlike innovation form on the top of the firm presentation. Consequently, we study whether the power of the innovation presentation connection that lay in the kind of innovation action. Moreover, we research two relative factors that perhaps power the innovation presentation connection: compact area as a state to firm inner uniqueness and the state civilization as a width reflecting firm outer uniqueness (Verhees & Meulenberg, 2004).

Purposely, we goal to give 5 insightful insights to text: first, we give a collective study of observed researches focus on the innovation presentation connection in the SMEs. While previous Meta study has given an understanding answer with the observed to the background of the innovation, a quantitatively observed aggregation of previous observed prove about the cost of the innovation in SMEs have not undertaken. And second, we study whether the kind of innovation mediates the innovation presentation connection. Our studies show different kinds of innovation as the background of the firm presentation: 1) innovation direction of the project, 2) input devoted to an innovation method and 3) output resulting from the innovation method (Aragón-Correa, García-Morales, & Cordón-Pozo, 2007). So, we look at whether the innovation direction, innovation method inputs, or the center on the innovation method outputs guide to diverge presentation property. This study contributes to its own thoughts on how to handle the advanced in SEMs. Thirdly, we extra purposely examine we whether the little trade manager or the entrepreneurs must be the focus on the inside generate advance by relying on our innovation income or rather it is extra useful to attention o the growth of the innovation by the outside collaborations or the knowledge gaining (Tsai, 2001a).

So, we furthermore tell between whether a) the input is the going toward an inner innovation growth method they are going to an innovation method that is undertaken in a relationship with the outside bodies. And frothily, we study whether the advance presentation connection is moderate by the area of the little firms. The diverse author put forward the innovation of the firm's single liability and chances. This study shows us to resolve whether the lack of routine creates in recognized hinders or facilitates capturing and creating the advantages of the innovation. As a fifth payment, we think the civilization background as a broker of the innovation presentation connection. Even though the running of the

innovation is a worldwide significance job, the crash of the innovation perhaps lay on the state civilization context (Aragón-Correa et al., 2007).

Our study purposely attention on the medium and little size firms (SMEs) without higher governments. This attention gives us to describe full conclusions for this exact background. It thus importantly addresses the problem of whether extra resource-scarce SME governments can profit from the innovation. The littlest of the analyzed government promise that the connection between the innovation and the presentation are extra instant and low confused by the further factors (Tsai, 2001b).

Literature Review

Innovation and the SME presentation by the vital position SMEs take part in finical and scientific growth, innovation in the background of little firms have usual more awareness in the text. Through SEMs usually face large reserve constraints, they are a lot of winning innovators. Less important, nimbler bodies and an industrial attitude high by the manager and the founders can make possible innovation actions in the SMEs. SMEs describing an innovation plan may important in some behavior. That advance is a chance for the industrial firms to get rents by the brief company of considers and control contact innovation action as the answer supply of long terms industrial victory. They pay to go quicker and, so, gain these controls rents for the bigger area of instance. The opening of the innovative goods, process, services or the trade models modified to good looking niche is the extra chance for the SMEs to position away from the struggle (Theyel, 2000).

In therefore responsibility, SEMs can profit from big kind devotion of the clients and a cheap cost kindliness of order as a result of clients' value of the personality of the advanced. Helping beautiful niches with innovative goods is the main benefit for the SMEs compare to high firms by their incomplete mass and higher liveliness (Bowen, Stanton, & Manno, 2012). Each and every one of these advantages attributable to the advance facilitates SMEs to effectively struggle with a well-fixed incumbent that can be based on the higher reserve lay than their littler counterparts. By contributing very much innovative goods, little firms can value fight. In extra, innovative goods may make a fresh claim and, so, make easy firm development. If the advance SME manager to order big barriers prevents participants from workplace access, the organization's level in the business is the innovation and the strengthened can guide to Constance's high common income. Moreover, the goods growth method is careful to live a sight dependent personal active capacity (Jeffrey C Kohles, Michelle C Bligh, & Melissa K Carsten, 2013a). It guides to aggressive benefits through the improvement, making or recombination of the income and their growth in value making strategies. The skill to rearrange their supplies ray due to the higher suppleness and quickness is a large benefit of the SMEs that are comparing to the huge corporations. At the same time as from a achieve capacity view, SMEs can advantage very much from the innovation (Lööf & Heshmati, 2006).

In extra to the shortest property in the SME presentation, education for the duration of the innovation method generates



absorptive ability described as the capacity to learn, see and give education. The absorptive ability urbanized by advancing the SME, as a result, implies aggressive benefits (Jeffrey C Kohles, Michelle C Bligh, & Melissa K Carsten, 2013b). More advantages of the innovation contain knowledge financial, financial of the scope and size, preemption of incomplete income, benefits in the more innovation, and the capacity to organize value (Sahin, 2006). Through these academic considerations advice helpful property of the innovation, the text also points a range of unhelpful property that can outcome from the innovation. Furthermore, advanced is a dangerous job that uses large property. In extra, the useful opening and growth of the innovation order particular governmental property and capacities in arrange to make and correct the advantages of the innovations (Thomas & Rogers, 1998).

Furthermore, the content in which advancing hard operate may change the result an innovation has for the hard firm. So, it must be supposed that a few hard of the innovation may be much advantage able than the further hard, these considerations advice that the whole crash of the innovation on the presentation of SME is a total achieve out coming from the mutually negative and the positive mediating property which is moreover moderated by the background factors (Kohles et al., 2013b). We imagine that lay on the aforesaid advice innovation has a helpful collective crash on the presentation, however, this result is highly situation needy. So, it must be so, we hypothesize a helpful connection between SME and the innovation presentation, before making moderating factors:

Innovation method input vs. the innovation method output. The growth of innovation is commonly made as a method. Firms disagree in the total of the input they apply to the advance method. On the other hand, the loyalty of further inputs to advance method does not security advance output, because the growth innovation is difficult and characterized by the huge danger. So, the method of the growth of the innovation requires to manage carefully in arrange to raise presentation (Valente, Dyal, Chu, Wipfli, & Fujimoto, 2015a). If the firms apply the large property to the advance method but are powerless to roll into the advance gifts, prosperities are wasted and the presentation suffers. The wasteful of the properties by the rude advance method organization is particularly harmful to the SMEs by their commonly large property constraints. If the SMEs offer an important amount of their property to the advance danger, however, they are powerless to make an arrival on their property funds, their survival and growth can be helpless (Lovejoy, Demireva, Grayson, & McNamara, 2009).

Moreover, further firms may have capacities to make innovative gifts, creation, processes or cost patents devote more properties to the advance danger. In so responsibility, the final firms are much capacity the leverage their properties which augment hard presentation (Valente, Dyal, Chu, Wipfli, & Fujimoto, 2015b). This base on this advice connected with the outcome of the advance method in the rotating advance inputs into the advance outputs in the SMEs, we wait for that SME presentation is unfair much powerfully by the total of advance result than the rate of advance inputs

(Makowsky, Guirguis, Hughes, Sadowski, & Yuksel, 2013). So, we posit:

H1: The positive nexus among the advance method input and innovation presentation in the private sector organization in Thailand.

The Innovation direction vs. the innovation method outputs. A study on innovation has used diverse concepts to evaluate the force of the innovation on the presentation. A basic difference must be finished between the planed directions of a hard with deference to the innovation and the real course of the organization to making of the innovation (Onkvisit & Shaw, 1989a). The planed direction of a hard structure of how a government handles the situation and make governmental as fit as forceful capacities. Because such, the governmental direction effect configuration and policy compilation by the wealth of determining the government (Minishi-Majanja & Kiplang'at, 2005).

Industrial direction text advice that an innovation direction raises presentation particularly in the environment of the property shortage, workplace access and when the opposite traditional and further creative incumbents. Therefore, an innovation direction perhaps of individual significance to the SMEs (Onkvisit & Shaw, 1989b). Moreover, an innovation direction can guide to skill in the scientific area and the innovative developed method. So, SMEs with a power direction just before the innovation is able to guide particular, innovative capacities and original gifts. Furthermore, innovation direction structures the civilization of the SMEs (Helitzer et al., 2003).

In the governments that attention to the innovation, workers guide a higher logic of proactively and loyalty. Moreover, an innovation direction can have helpful brand properties. For instance, an innovation direction may be a successful answer for the SMEs to beat liabilities connected with the littlest (Helitzer et al., 2003). This guides us to suggest:

H2: The positive nexus among the innovation direction and innovation presentation in the private sector organization in Thailand.

The text stresses the helpful property of guiding innovation in the combination with the outer, oftentimes better followers proposes that importantly fresh and little firms hardly even have the income and capacities to answer to the innovation stress at some known time (McMullen, Griffiths, Leber, & Greenhalgh, 2015). Importantly in the active workplaces, a supply rare SME can powerful its single information by aggressively reconfiguring and configuring its collaborations (Harting, Rutten, Rutten, & Kremers, 2009).

Moreover, the advantages of the innovation project do not get to live common with potentially power colleagues. From an active viewpoint, importantly fresh firms may at first to gain poor conditions in the teamwork projects by the aforesaid danger of littleness and danger of the innovation (MOSELEY, 2004).

Focusing on the inner growth projects gives commercializing the advance presently at most positive conditions. Through the outer teamwork can give advantages, it as well implies shortest exercises and chance expenses. By these issues, SEMs might not be capable to make and correct the advantages of the innovation in the outer innovation



collaborations. By difference, attention on the outer innovation growth, reduce difficulties, gives skills growth, and permit complete cheating of the innovation income (Chuang & Lin, 2015). This guides us to hypothesize:

H3: The positive nexus among the inner innovation project and innovation presentation in the private sector organization in Thailand.

Particularly recognized SMEs may lose their inner aggressive benefit of the liveliness as they support center routine, shapes and processes. Indifference, the fresh venture is open to making shapes and processes to the firm exact chances associative capacities that are hard to copy and replace so, developing the making of aggressive benefits (Gouws & Van Rheede van Oudtshoorn, 2011). As an outcome, fresh entrants that show a huge level of industrial direction, frequently open essential innovation in the situation of the technologically-induced discontinuities. So, innovation is known as a gifting plan for fresh ventures. Since fresh firms must be likely to be more supply and alert than the wellknown SMEs, they have a protracted point of the working under the situations of partial struggle inbox than they establish the innovation. Both area and supplies of plan property are of significance when companies grown-up (Rahimi, Timpka, Vimarlund, Uppugunduri, & Svensson,

On the other hand, the area arrives at the expense of the most incomplete supplies. Advance hinges on the skill to change a government and hard 4 obstacles to the innovation: 1) public are flat to crop and defend existing works and routine that showed their previous growth, 2) while innovations create frequently at the personal level, they require to be embrace and unspoken by the complete government need common impetus, 3) present useful teams require to make a matched crack so out coming in attest to connect the processes of the government levels to a complete, and 4) the government requires not just to hug the innovation but also to change its presented shapes and works difficult plan connection (Hubbard & Hayashi, 2003).

However, the specialization comes at the cost of more limited flexibility. Van de Ven (1986) highlights that innovation hinges on the ability to adjust as an organization and stresses four obstacles to innovations: 1) people are prone to harvest and protect existing practices and routines that enabled their prior development, 2) while innovations originate often at the individual level, they need to be understood and embraced by the whole organization requiring social impetus, 3) various functional groups need to make a coordinated effort hence resulting in a challenge to link the processes of organization parts to a whole, and 4) the organization needs not only to embrace the innovation but also to transform its existing structure and practices demanding strategic leadership. So, we disagree that fresh ventures profit extra from the innovation than grown-up SMEs (Sharma & Kanekar, 2008). H4 (a): The uniqueness has positive mediation among the

H4 (a): The uniqueness has positive mediation among the links of advance method input and innovation presentation in the private sector organization in Thailand.

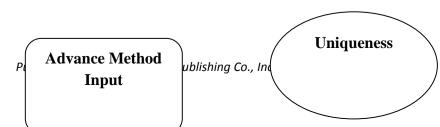
H4 (b): The uniqueness has positive mediation among the links of innovation direction and innovation presentation in the private sector organization in Thailand.

H4 (c): The uniqueness has positive mediation among the links of inner innovation project and innovation presentation in the private sector organization in Thailand.

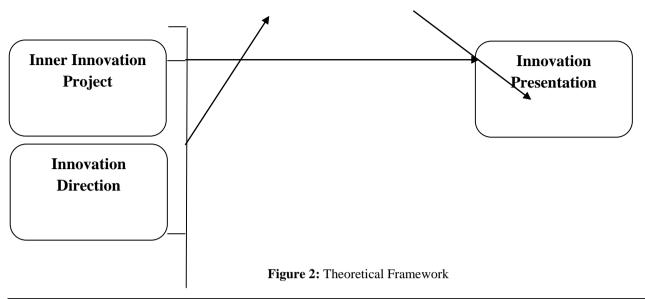
Research Methods

The foremost purpose of this literature is to investigate the effects of an inner innovation project, advance method input and innovation direction on the innovation presentation in the private organization in Thailand. The aim also includes the examination of the mediating role of uniqueness among the links of inner innovation project and innovation presentation, advance method input and innovation presentation, and innovation direction and innovation presentation. The questionnaire methods were used to collect the data from the employees of the R&D department of the private sector in Thailand. The Smart-PLS was used to check the validity and hypotheses. The variables that are used by the study have 37 items in which 6 items belong to the dependent variable such as innovation presentation (IP) while independent variables such as inner innovation project (IIP) has 5 items, advance method input (AMI) has 16 items and innovation direction (ID) also has 5 items. In addition, uniqueness (UN) has also 5 items and used as a mediator in the study.

Theoretical Framework







Findings

The results of the existing study show the discriminant and convergent validity with path analysis that is included for the hypotheses testing. The figures indicated that no issue with **Table 2:** Convergent Validity

convergent validity because all of the standards are met by the outcomes. Table 2 given below show the convergent validity.

Constructs	Items	Loadings	Alpha	CR	AVE
Advance Method Input	AMI1	0.862	0.965	0.969	0.659
	AMI2	0.687			
	AMI3	0.761			
	AMI4	0.819			
	AMI5	0.743			
	AMI6	0.789			
	AMI7	0.863			
	AMI8	0.850			
	AMI9	0.836			
	AMI10	0.840			
	AMI11	0.821			
	AMI12	0.824			
	AMI13	0.793			
	AMI14	0.839			
	AMI15	0.823			
	AMI16	0.820			
Innovation Presentation	IP1	0.846	0.908	0.929	0.684
	IP2	0.801			
	IP3	0.838			
	IP4	0.849			
	IP5	0.829			
	IP6	0.800			
Innovation Direction	ID1	0.941	0.959	0.968	0.858
	ID2	0.894			



	ID3	0.926			
	IDS	0.920			
	ID4	0.926			
	ID5	0.945			
Inner Innovation Project	IIP1	0.858	0.922	0.941	0.761
	IIP2	0.871			
	IIP3	0.879			
	IIP4	0.889			
	IIP5	0.866			
Uniqueness	UN1	0.981	0.965	0.974	0.884
	UN2	0.982			
	UN3	0.756			
	UN4	0.980			
	UN5	0.981			

The discriminant validity that is the indication of correlation among the constructs is checked by Fornell Larcker. The figures show no issue with discriminant validity because the constructs itself values are greater than the other variable

values. Table 3 given below shows the Fornell Larcker method of discriminant validity.

Table 3: Fornell Larcker

_	AMI	IP	ID	IIP	UN
AMI	0.812				
IP	0.510	0.827			
ID	0.158	0.186	0.927		
IIP	0.436	0.380	0.162	0.873	
UN	0.856	0.484	0.169	0.363	0.940

The discriminant validity that is the indication of correlation among the constructs is checked by cross-loadings. The figures show no issue with discriminant validity because the constructs itself values are greater than the other variable **Table 4:** Cross-loadings

values. Table 4 given below shows the cross-loadings method of discriminant validity.

	AMI	IP	ID	IIP	UN
AMI1	0.862	0.463	0.098	0.358	0.712
AMI2	0.687	0.322	0.122	0.342	0.521
AMI3	0.761	0.395	0.117	0.348	0.643
AMI4	0.819	0.385	0.102	0.377	0.669
AMI5	0.743	0.392	0.175	0.331	0.657
AMI6	0.789	0.298	0.063	0.355	0.643
AMI7	0.863	0.450	0.106	0.355	0.713
AMI8	0.850	0.447	0.150	0.371	0.783
AMI9	0.836	0.448	0.152	0.355	0.754
AMI10	0.840	0.457	0.214	0.340	0.740
AMI11	0.821	0.444	0.114	0.363	0.710
AMI12	0.824	0.386	0.103	0.374	0.664
AMI13	0.793	0.307	0.071	0.350	0.642
AMI14	0.839	0.456	0.193	0.341	0.744
AMI15	0.823	0.466	0.137	0.359	0.747



AMI16 0.820 0.448 0.116 0.356 0.721 IP1 0.431 0.846 0.162 0.331 0.389 IP2 0.440 0.801 0.157 0.315 0.366 IP3 0.382 0.838 0.150 0.284 0.382 IP4 0.418 0.849 0.152 0.336 0.392 IP5 0.379 0.829 0.144 0.297 0.366 IP6 0.467 0.800 0.156 0.319 0.489 ID1 0.136 0.190 0.941 0.150 0.140 ID2 0.176 0.198 0.894 0.147 0.183 ID3 0.140 0.131 0.926 0.150 0.156 ID4 0.146 0.136 0.926 0.158 0.162 ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2<						
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IP3 0.382 0.838 0.150 0.284 0.382 IP4 0.418 0.849 0.152 0.336 0.392 IP5 0.379 0.829 0.144 0.297 0.366 IP6 0.467 0.800 0.156 0.319 0.489 ID1 0.136 0.190 0.941 0.150 0.140 ID2 0.176 0.198 0.894 0.147 0.183 ID3 0.140 0.131 0.926 0.150 0.156 ID4 0.146 0.136 0.926 0.158 0.162 ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5	IP1	0.431	0.846	0.162	0.331	0.389
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IP5 0.379 0.829 0.144 0.297 0.366 IP6 0.467 0.800 0.156 0.319 0.489 ID1 0.136 0.190 0.941 0.150 0.140 ID2 0.176 0.198 0.894 0.147 0.183 ID3 0.140 0.131 0.926 0.150 0.156 ID4 0.146 0.136 0.926 0.158 0.162 ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2	IP3	0.382	0.838	0.150	0.284	0.382
IP6 0.467 0.800 0.156 0.319 0.489 ID1 0.136 0.190 0.941 0.150 0.140 ID2 0.176 0.198 0.894 0.147 0.183 ID3 0.140 0.131 0.926 0.150 0.156 ID4 0.146 0.136 0.926 0.158 0.162 ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3	IP4	0.418	0.849	0.152	0.336	0.392
ID1 0.136 0.190 0.941 0.150 0.140 ID2 0.176 0.198 0.894 0.147 0.183 ID3 0.140 0.131 0.926 0.150 0.156 ID4 0.146 0.136 0.926 0.158 0.162 ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4	IP5	0.379	0.829	0.144	0.297	0.366
ID2 0.176 0.198 0.894 0.147 0.183 ID3 0.140 0.131 0.926 0.150 0.156 ID4 0.146 0.136 0.926 0.158 0.162 ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	IP6	0.467	0.800	0.156	0.319	0.489
ID3 0.140 0.131 0.926 0.150 0.156 ID4 0.146 0.136 0.926 0.158 0.162 ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	ID1	0.136	0.190	0.941	0.150	0.140
ID4 0.146 0.136 0.926 0.158 0.162 ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	ID2	0.176	0.198	0.894	0.147	0.183
ID5 0.129 0.193 0.945 0.146 0.135 IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	ID3	0.140	0.131	0.926	0.150	0.156
IIP1 0.327 0.335 0.124 0.858 0.275 IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	ID4	0.146	0.136	0.926	0.158	0.162
IIP2 0.393 0.328 0.140 0.871 0.327 IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	ID5	0.129	0.193	0.945	0.146	0.135
IIP3 0.365 0.319 0.138 0.879 0.291 IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	IIP1	0.327	0.335	0.124	0.858	0.275
IIP4 0.394 0.302 0.189 0.889 0.337 IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	IIP2	0.393	0.328	0.140	0.871	0.327
IIP5 0.415 0.370 0.118 0.866 0.348 UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	IIP3	0.365	0.319	0.138	0.879	0.291
UN1 0.795 0.449 0.169 0.331 0.981 UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	IIP4	0.394	0.302	0.189	0.889	0.337
UN2 0.792 0.446 0.160 0.328 0.982 UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	IIP5	0.415	0.370	0.118	0.866	0.348
UN3 0.824 0.467 0.129 0.372 0.756 UN4 0.788 0.454 0.164 0.334 0.980	UN1	0.795	0.449	0.169	0.331	0.981
UN4 0.788 0.454 0.164 0.334 0.980	UN2	0.792	0.446	0.160	0.328	0.982
	UN3	0.824	0.467	0.129	0.372	0.756
UN5 0.801 0.444 0.168 0.332 0.981	UN4	0.788	0.454	0.164	0.334	0.980
	UN5	0.801	0.444	0.168	0.332	0.981

The discriminant validity that is the indication of correlation among the constructs is checked by Heterotrait and Monotrait (HTMT) ratio. The figures show no issue with discriminant validity because the values are less than 0.90. Table 5 given

below shows the HTMT ratio method of discriminant validity.

 Table 5: Heterotrait and Monotrait Ratio

	AMI	IP	ID	IIP	UN
AMI					
IP	0.537				
ID	0.161	0.195			
IIP	0.462	0.413	0.173		
UN	0.882	0.512	0.174	0.383	



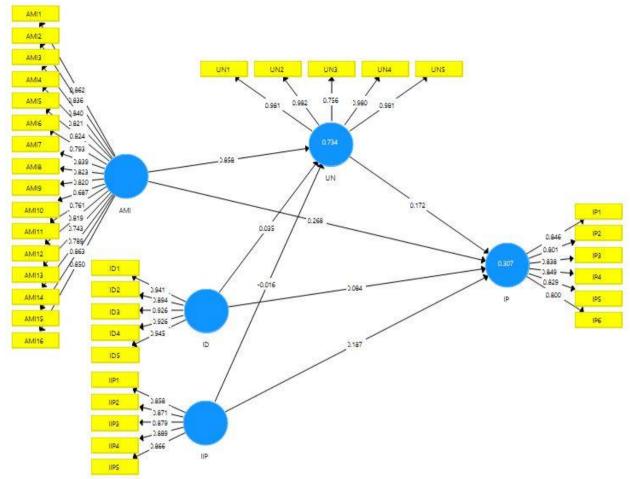


Figure 3: Measurement Model Assessment

The path analysis shows that the beta has linked with a positive sign that means positive links among the AMI and IP, ID and IP, IIP and IP while the links are significant because t-statistics are higher than 1.64 and probabilities values are less than 0.05. In addition, there is 1 percent chance in AMI the IP will change by 0.268 percent while there is 1 percent chance in ID the IP will change by 0.0084 percent **Table 6:** Path Analysis

there is 1 percent chance in IIP the IP will change by 0.187 percent. Moreover, the UN has positive and significant mediation among the links of AMI and IP, ID and IP, IIP and IP because all the criteria are full filled. Table 6 shows the path analysis given below:

	Beta	S.D.	t-values	p-values	L.L.	U.L.
AMI -> IP	0.268	0.107	2.508	0.006	0.089	0.452
ID -> IP	0.084	0.050	1.699	0.045	0.004	0.154
IIP -> IP	0.187	0.062	3.017	0.001	0.074	0.274
UN -> IP	0.172	0.101	1.713	0.044	0.006	0.324
$AMI \rightarrow UN \rightarrow IP$	0.148	0.086	1.71	0.044	0.002	0.277
$ID \rightarrow UN \rightarrow IP$	1.154	0.096	12.023	0.034	0.002	0.021
IIP -> UN -> IP	1.114	0.086	12.953	0.031	0.022	0.005



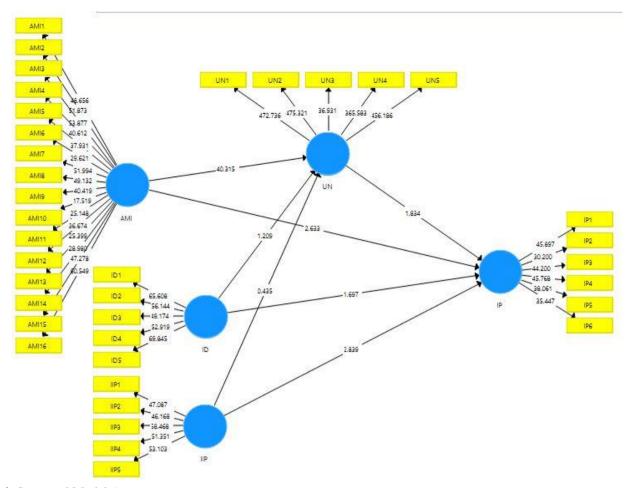


Figure 4: Structural Model Assessment

Discussions

The findings indicated that a positive association among the inner innovation project, advance method input, innovation direction, and innovation presentation. The output also includes the uniqueness positively mediates among the links of inner innovation project and innovation presentation, advance method input and innovation presentation, and innovation direction and innovation presentation. The private organization in Thailand has implemented effective innovation practices that enhance the performance of innovation and business while the uniqueness of the organization also plays its effective role in the performance of innovation dimensions and innovation presentations. These findings are matched with the results of the past studies who also found that positive nexus among the innovation dimension and presentation of innovation. These findings give insight to the policymakers that they should be made the

REFERENCES

- [1]. Aragón-Correa, J. A., García-Morales, V. J., & Cordón-Pozo, E. (2007). Leadership and organizational learning's role on innovation and performance: Lessons from Spain. *Industrial marketing management*, 36(3), 349-359. doi: https://doi.org/10.1016/j.indmarman.2005.09.006
- [2]. Bowen, C. M., Stanton, M., & Manno, M. (2012). Using Diffusion of Innovations Theory to

policies that enhance the interest of the people in the adoption of innovation that enhance the firm performance.

Conclusion

Finally, based on these results, the existing study draw the conclusion that the private organization in Thailand are implemented the effective innovation practices that enhance the performance of innovation and business while uniqueness of the organization also play its effective role in the performance on innovation dimensions and innovation presentations.

Limitations and Future Directions

The findings of current study is only generalized in private sector due to narrow scope of study and further studies should include other sectors. This study also ignore the cross country analysis and recommended that further studies take this important aspect in to their consideration while investigating this area in future.

- implement the confusion assessment method for the intensive care unit. *Journal of nursing care quality*, 27(2), 139-145.
- [3]. Chetthamrongchai, P., & Jermsittiparsert, K. (2019).

 Promoting Female Entrepreneurial Growth
 Intention in Thailand's Tourism Industry: Role of
 Education Driven Ability, Opportunities and
 Advisory. Journal of Computational and



- *Theoretical Nanoscience*, *16*(11), 4638-4645. DOI: 10.1166/jctn.2019.8372.
- [4]. Chienwattanasook, K. & Jermsittiparsert, K. (2019). Impact of Entrepreneur Education on Entrepreneurial Self-Employment: A Case Study from Thailand. *Polish Journal of Management Studies*, 19(1), 106-116. DOI: 10.17512/pjms.2019.19.1.08.
- [5]. Chuang, S.-H., & Lin, H.-N. (2015). Co-creating eservice innovations: Theory, practice, and impact on firm performance. *International Journal of Information Management*, *35*(3), 277-291. doi: https://doi.org/10.1016/j.ijinfomgt.2015.01.002
- [6]. Gouws, T., & Van Rheede van Oudtshoorn, G. P. (2011). Correlation between brand longevity and the diffusion of innovations theory. *Journal of Public Affairs*, 11(4), 236-242. doi: https://doi.org/10.1002/pa.416
- [7]. Harting, J., Rutten, G. M., Rutten, S. T., & Kremers, S. P. (2009). A qualitative application of the diffusion of innovations theory to examine determinants of guideline adherence among physical therapists. *Physical Therapy*, 89(3), 221-232. doi: https://doi.org/10.2522/ptj.20080185
- [8]. Helitzer, D., Heath, D., Maltrud, K., Sullivan, E., Alverson, D., & e-health. (2003). Assessing or predicting adoption of telehealth using the diffusion of innovations theory: a practical example from a rural program in New Mexico. *Telemedicine Journal*, 9(2), 179-187. doi: https://doi.org/10.1089/153056203766437516
- [9]. Hubbard, S. M., & Hayashi, S. W. (2003). Use of diffusion of innovations theory to drive a federal agency's program evaluation. *Evaluation program planning*, 26(1), 49-56. doi: https://doi.org/10.1016/S0149-7189(02)00087-3
- [10]. Jansen, J. J., Van Den Bosch, F. A., & Volberda, H. W. (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management science*, 52(11), 1661-1674. doi: https://doi.org/10.1287/mnsc.1060.0576
- [11]. Kohles, J. C., Bligh, M. C., & Carsten, M. K. (2013a). The vision integration process: Applying Rogers' diffusion of innovations theory to leader–follower communications. *Leadership*, *9*(4), 466-485. doi: https://doi.org/10.1177/1742715012459784
- [12]. Kohles, J. C., Bligh, M. C., & Carsten, M. K. (2013b). The vision integration process: Applying Rogers' diffusion of innovations theory to leader–follower communications. *Leadership*, *9*(4), 466-485. doi: https://doi.org/10.1177/1742715012459784
- [13]. Lööf, H., & Heshmati, A. (2006). On the relationship between innovation and performance: A sensitivity analysis. *Economics of Innovation New Technology*, 15(4-5), 317-344. doi: https://doi.org/10.1080/10438590500512810

- [14]. López-Nicolás, C., & Meroño-Cerdán, Á. L. (2011). Strategic knowledge management, innovation and performance. *International journal of information,* 31(6), 502-509. doi: https://doi.org/10.1016/j.ijinfomgt.2011.02.003
- [15]. López-Nicolás, C., & Meroño-Cerdán, Á. L. m. (2011). Strategic knowledge management, innovation and performance. *International journal of information*, 31(6), 502-509. doi: https://doi.org/10.1016/j.ijinfomgt.2011.02.003
- [16]. Lovejoy, T. I., Demireva, P. D., Grayson, J. L., & McNamara, J. R. T. (2009). Advancing the practice of online psychotherapy: An application of Rogers' diffusion of innovations theory. *Psychotherapy: Theory, Research, Practice, , 46*(1), 112. doi: https://doi.org/10.1037/a0015153
- [17]. Makowsky, M. J., Guirguis, L. M., Hughes, C. A., Sadowski, C. A., & Yuksel, N. (2013). Factors influencing pharmacists' adoption of prescribing: qualitative application of the diffusion of innovations theory. *Implementation Science*, 8(1), 109. doi: https://doi.org/10.1186/1748-5908-8-109
- [18]. McMullen, H., Griffiths, C., Leber, W., & Greenhalgh, T. (2015). Explaining high and low performers in complex intervention trials: a new model based on diffusion of innovations theory. *Trials*, *16*(1), 242. doi: https://doi.org/10.1186/s13063-015-0755-5
- [19]. Minishi-Majanja, M. K., & Kiplang'at, J. (2005). The diffusion of innovations theory as a theoretical framework in library and information science research. South African journal of libraries information science, 71(3), 211-224.
- [20]. MOSELEY, S. F. (2004). Everett Rogers' diffusion of innovations theory: Its utility and value in public health. *Journal of health communication*, 9(S1), 149-151. doi: https://doi.org/10.1080/10810730490271601
- [21]. Onkvisit, S., & Shaw, J. J. (1989a). The diffusion of innovations theory: Some research questions and ideas. *Akron Business Economic Review*, 20(1), 46.
- [22]. Onkvisit, S., & Shaw, J. J. (1989b). The diffusion of innovations theory: Some research questions and ideas. *Akron Business Economic Review*, 20(1), 46.
- [23]. Rahimi, B., Timpka, T., Vimarlund, V., Uppugunduri, S., & Svensson, M. (2009). Organization-wide adoption of computerized provider order entry systems: a study based on diffusion of innovations theory. *BMC Medical Informatics Decision Making*, 9(1), 52. doi: https://doi.org/10.1186/1472-6947-9-52
- [24]. Sahin, I. (2006). Detailed review of Rogers' diffusion of innovations theory and educational technology-related studies based on Rogers' theory. *Turkish Online Journal of Educational Technology-TOJET*, 5(2), 14-23.
- [25]. Sharma, M., & Kanekar, A. (2008). Editorial Diffusion of innovations theory for alcohol, tobacco,



- and drugs. Journal of Alcohol Drug Education, 42(1), 3-8.
- [26]. Sriyakul, T. & Jermsittiparsert, K. (2019). The Mediating Role of Entrepreneurial Passion in the Relationship between Entrepreneur Education and Entrepreneurial Intention among University Students in Thailand. *International Journal of Innovation, Creativity and Change*, 6(10), 193-212.
- [27]. Theyel, G. (2000). Management practices for environmental innovation and performance. *International journal of operations*. doi: https://doi.org/10.1108/01443570010304288
- [28]. Thomas, E., & ROGERS, B. E. M. (1998). Diffusion of innovations theory and work-site AIDS programs. *Journal of health communication*, *3*(1), 17-28. doi: https://doi.org/10.1080/108107398127481
- [29]. Tsai, W. (2001a). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of management journal*, 44(5), 996-1004. doi: https://doi.org/10.5465/3069443
- [30]. Tsai, W. (2001b). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of management journal*, 44(5), 996-1004. doi: https://doi.org/10.5465/3069443
- [31]. Valente, T. W., Dyal, S. R., Chu, K.-H., Wipfli, H., & Fujimoto, K. (2015a). Diffusion of innovations theory applied to global tobacco control treaty ratification. *Social Science Medicine*, *145*, 89-97. doi:
 - https://doi.org/10.1016/j.socscimed.2015.10.001
- [32]. Valente, T. W., Dyal, S. R., Chu, K.-H., Wipfli, H., & Fujimoto, K. (2015b). Diffusion of innovations theory applied to global tobacco control treaty ratification. *Social Science Medicine*, 145, 89-97.
 - https://doi.org/10.1016/j.socscimed.2015.10.001
- [33]. Verhees, F. J., & Meulenberg, M. T. (2004). Market orientation, innovativeness, product innovation, and performance in small firms. *Journal of small business management*, 42(2), 134-154.