

Knowledge Management, Business Performance and Innovation Intervention in Thailand

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Abstract

The goal related to the present study is to explore the link between knowledge management and business performance in the SMEs of Thailand. An additional goal was to explore the mediating role of innovation among the link of knowledge management and business performance of the SMEs in Thailand. The employee of the research and development department of the SMEs industry that is currently operating are the respondents of the study. The data were extracted from the respondents by using valid questionnaires and PLS-SEM was utilized for data analysis. The findings show that knowledge management in SMEs has positive nexus with business performance in Thailand. The outcomes also include that the innovation has a positive impact on the business performance as well as positively mediates among the links of knowledge management and business performance of the SMEs in Thailand. These findings give the guideline to the upcoming researchers while investigating this area in the future and also provide the help to the policy developers that they should develop reasonable regulations for the innovation implementation in the organizations that enhance the business performance.

Keywords: Knowledge Management, Business Performance, Innovation, SMEs

Introduction

With the rise of the information-based economy, information is considered as the fundamental method to make riches and flourishing and it is the significant main impetus for business achievement. Anand, Gardner, and Morris (2007) contends that information is a basic wellspring of an association's upper hand, while Martín-de Castro (2015) recommend that ventures endeavor to search for ways that reinforce the administration of information assets so as to adapt to the organization's difficulties in contending condition for improved business execution. Information the executives (KM) has progressively become a subject of enthusiasm for a wide range of associations because of the developing attention to the significance of information for the association's flourishing and endurance. That is the reason Wadhawa and Rao (2003) prescribe that KM ought to

be remembered for the SMEs' everyday exercises so they become progressively fruitful and remain longer. Accessible research offers help for huge connections among KM and business execution.

In any case, KM never again stands apart as an adequate factor that can prompt improved business execution in the present profoundly serious condition where pressures for organizations to satisfy different clients' needs are a difficult assignment. A few examinations propose different variables that are expected to accomplish business execution. Among them, an investigation directed by Norazmir et al. (2012) on the exhibition of SMEs in Thailand indicated that there was a high pace of disappointment of those SMEs in spite of their proprietors being taught. In an equivalent way, the yearly reports aggregated by Abdul-Mutalib et al. (2012) on the province of SMEs in Thailand showed that SMEs were performing ineffectively in spite of utilizing government offices.

From the investigations referenced above, it was uncovered that the terrible showing and disappointment of Thailand SMEs basically got from the "me-as well" disorder, that is, doing comparable organizations and lacking advancement. As indicated

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by Asheim, Coenen, Moodysson, and Vang (2007), the development includes the change of thought into another item or administration that addresses and fulfills the issues and desires for clients. Different investigations additionally stress the indispensable job of development in business execution. Goh (2005) underpins a similar view contending that for a business to accomplish better execution and stay serious, the information should be overseen successfully as well as creatively.

In further advancements, information-based hypothesis (KBT) bolsters that when information is successfully overseen, it makes particular capacities that add to improved business execution through the development and in this way, predominant business execution is accomplished through compelling KM that advances development.

Different specialists like similarly declare that successful KM through information securing, information sharing and information application add to imagination and advancement which serve to improve business execution. Up until this point, there has been constrained research on the interceding job of development in the connection among KM and business execution. A large portion of existing writing examines the interceding job of advancement in the connection between business execution and different elements, for example, hierarchical picking up, producing adaptability, retailers' key directions, and individual authority. Somewhere else, Wadhawa and Rao (2003) analyzed the intervening job of development among KM and hierarchical flexibility.

Right now, I need to appreciate the activity of advancement in the association among KM and the business execution of SMEs prodded this examination. The purpose of this paper was to take a gander at the intervening effect of improvement on the association among KM and business execution of SMEs. With respect to this paper, KM implies data verifying, data sharing and data application, while headway construes the systems of exhibiting new things and promotes or improving the present ones. As for business execution, it is seen from the perspective of advantages, bargains improvement and a bit of the general business. This paper battles that without convincing KM there may not be any headway, and without improvement, SMEs may not perform well. Hence, suitable KM close by progression can almost certainly explain the adjustments in the business execution of SMEs (Leiponen, 2006).

The responsibility of this work is the option of a variety of existing data in the going with habits: First, the paper includes to scholarly conversation the interceding occupation of progression in the association among KM and business execution of SMEs by giving confirmation from a making country, where there isn't a ton of research in regards to the issue. Second, the paper engages analysts and specialists to have a continuously positive and direct appreciation of the repercussions of headway in the relationship among KM and business execution of SMEs. Third, the paper gives more explanation as to a consequence of how advancement transmits the effect of data on the board to business execution (K. H. Kang & Kang, 2009).

Innovation and SMEs in Thailand

The world has become a global village. Countries failed to respond to a rapid technological failure to secure their place in developed countries. Some highlights of Thailand investment in innovation is as under: -

Table 1. Innovation and SMEs in Thailand

Sr.	Year	Innovation Index
1	2015	38
2	2016	37.6
3	2017	36.51
4	2018	38.1

From the above graphical representation, we can see that Thailand paying more and more investment in Innovation. In 2015 Thailand stands at 38 positions in the innovation index. In the year 2016 Thailand innovation index raking reduced from 38 to 37.7. It further reduced to 36.51 in the year 2017. After two years Thailand again secures 38th position in the ranking which concludes that the country is investing in innovation for development.

Literature Review

SMEs in Thailand are seen by the legislature as an indispensable instrument of advancement which can empower it to advance from its pre-destruction time to an information-based economy forward to an industrialized economy. It is assessed that SMEs in Thailand represent 92% of everything being equal and contribute about a portion of all private part laborers. Thailand has around 72,000 SMEs creating assessed charge incomes of 4.9 billion (appx) every year and represent 33% of the GDP. Likewise, around 45% of

these SMEs. The Government of Thailand has made a progression of activities intended to improve the business condition, for example, encouraging

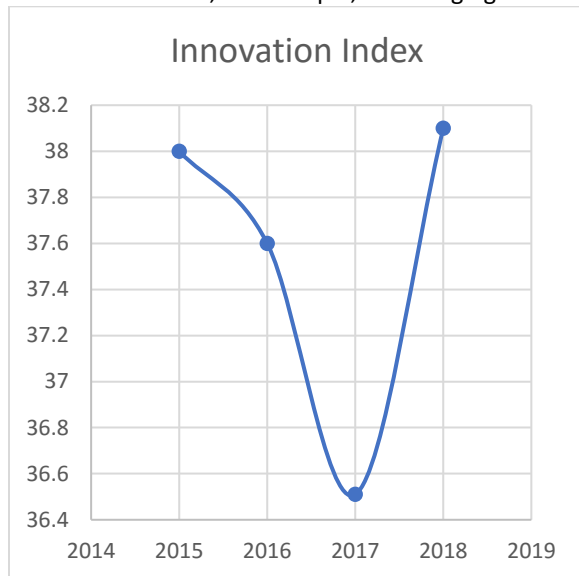


Figure 1. Innovation in Small and Medium Enterprises

enlistment and tax collection methodology of new organizations, giving preparing in regards to enterprise and specialized abilities, exhortation and specialized help to SMEs, and helping these SMEs to set up systems administration and encouraging financing instruments (García-Morales, Lloréns-Montes, & Verdú-Jover, 2008).

The Government of Thailand has likewise made an empowering arrangement condition for the support of the private division (Private Sector Federation), non-administrative associations, and other improvement accomplices (DPS). The fundamental motivation behind the Thailand SME Policy is to give a favorable situation through the arrangement of money related and specialized help in the territories of advertising and worth expansion, in this manner improving efficiency of these SMEs. Be that as it may, this division has extraordinary difficulties and variables which influence its business achievement. Therefore, numerous SMEs don't arrive at their maximum capacity and neglect to develop, bringing about the loss of occupations and riches for the regions in which they are based (Chiang & Hung, 2010).

Knowledge Management

Information on the board (KM) as an idea has become significant on account of the developing

consciousness of the significance of information for the association's thriving and endurance. Therefore, information has been related to two crucial qualities, in particular, implied information and express information. As indicated by Anand et al. (2007), unsaid information includes the unpredictable procedure of appreciation which may not be straightforward on the grounds that it is difficult to process. It is evaluated as capacities, abilities, and thoughts which people may have intellectually. For Dougherty (2004), this kind of information can be moved distinctly by methods for connections with others in the association through encounters, practice, sentiments, and perspectives among others. Then again, unequivocal information implies the data that can without much of a stretch be verbalized or classified, moved, and shared to others as manuals, truth sheets, pictures, outlines, and graphs.

KM has been operationally characterized distinctively in view of its multi-dimensional nature. For instance, Cui and Wu (2016) alluded to KM as the way toward recognizing and investigating open information that is expected to accomplish hierarchical destinations. For Taherparvar, Esmaeilpour, and Dostar (2014), KM includes information procurement, information spread and the utility of accessible information. KM has additionally been analyzed as a procedure of gaining, putting away, getting, sharing, executing information and all moves made in the learning procedure coupled with techniques of the associations concerned. Further, Maurer, Bartsch, and Ebers (2011) thought about KM as endeavors to investigate the inferred and express information on people, gatherings, and associations and to change over this fortune into hierarchical resources that are utilized by supervisors to settle on authoritative choices. From the above survey, this examination utilized information obtaining, information sharing and information application/responsiveness to information as the development of KM (Koskinen, 2005).

Innovation

There is no commonly pleasant meaning of development. As indicated development is the usage of another authoritative strategy in strategic policies, work environment association, or outside relations. As per Bogers and West (2012), development is the way toward interpreting a thought or revelation into a decent or administration that makes an incentive to

address and fulfill the issues and desires for clients. Essentially, Tether and Tajar (2008) express that advancement is the creation, adjustment and usage of a worth included, oddity in business and assembling areas, reestablishment and extension of an item, administrations and markets, creation of better approaches for item improvement and building up new administration framework. For Kremp and Mairesse (2004), hierarchical advancements are estimated depending on the item, process, and managerial developments, while Zhang, Shu, Jiang, and Malter (2010), estimated advancement utilizing the item, procedure and market developments. Right now, three builds of advancement have been utilized, in particular item development, process advancement, and market advancement.

Knowledge Management vs Business performance

Knowledge Management is viewed as the perfect system that organizations can use to improve their opposition level since information is a key asset that permits them to acquire a more elevated level of seriousness and advancement. KBT advocates that the upper hand of the firm originates from immaterial resources, for example, firm-explicit information (unequivocal information), the inferred information on its kin and the capacity to apply information assets. Shujahat et al. (2019) contend that information prompts execution improvement when it all around oversees. KBT recommends that KM rehearses, for example, the information obtaining, information creation, information sharing, and information stockpiling and information execution assume an essential job in accomplishing prevalent execution. Moreover, researchers, as Wang and Han (2011) announced that organizations that utilization reasonable KM rehearses upgrade their capacities, bringing about improved business execution.

For example, Swan, Newell, and Robertson (2000) affirmed that information the board direction assumed positive jobs in advancing authoritative execution in China. The investigation of Al-Laham, Tzabbar, and Amburgey (2011) uncovered that KM emphatically impacted the presentation of assembling firms. Further, the investigation of Martinez Sanchez and Pérez Pérez (2003) indicated that there is an association between both of these KM and innovation.

With regard to SMEs, Tödtling, Asheim, and Boschma (2013) detailed a noteworthy connection between KM and business execution. Right now,

sharing had higher factor stacking contrasted and another KM rehearses. Simultaneously, money related execution had higher factor contrasted and other authoritative execution parts. Specialists, as Elche-Hotelano (2011) then again, have shown that KM affected emphatically and fundamentally the presentation of the SMEs industry. In any case, the advantages of KM selection are not completely misused by SMEs in creating nations, especially in Thailand. What is faulty however is the degree to which KM impacts the business execution of SMEs.

H1: There is an association between knowledge management and business performance in SMEs of Thailand.

Innovation and Business performance

Inferable from the present degrees of extraordinary challenge and violent business conditions, SMEs need to screen their serious edges versus their rivals through quick developments. This halfway clarifies why advancements are increasingly indispensable to business execution levels. As indicated by Tortoriello (2015), advancements have a noteworthy impact on associations' presentation, endurance, and seriousness. Likewise, Chiaroni, Chiesa, and Frattini (2011) contend that developments furnish firms with a vital direction to accomplish the practical upper hand.

Past analysts have tried the relationship among developments and business execution and have discovered huge positive connections. For example, Mothe and Thi (2010) study uncovered that business execution relied upon the number of developments, the nature of those advancements and the firm assets put resources into the developments. While the investigation of Yazici (2014) item developments was found to have more grounded indicator power in execution than process advancements.

The positive and huge connections among developments and business execution were additionally found in the SMEs industry inside various business areas. Another investigation done by Wadhawa and Rao (2003) analyzed the connection among development and execution of wooden furniture producing SMEs in Indonesia. The investigation found a positive and noteworthy impact on the advancement and the company's exhibition. Likewise, G. D. Kang and James (2004) demonstrated that organizations with tendencies to developments had the option to confront changes in the serious conditions and acquired prevalent execution (for

example South Korean SMEs). In a similar line, the study found that advancement culture and procedure spoke to key drivers to the exhibition of assembling SMEs in Australia.

Different investigations on the impact of development on business execution concocted comparative or somewhat various outcomes. For example, literature uncovered a positive effect of the item and procedure advancements on firms' presentation in assembling segment in Malaysia yet no immediate connection between advertising developments and firms' exhibition were set up. However, another examination was done in Kenya, Chiang and Hung (2010) uncovered that advancements affected the development of a piece of clothing SMEs. It additionally demonstrated that the propensity of proprietors to participate in new thoughts and inventive procedures brought about new items and procedures which had an extraordinary impact on the presentation of SMEs.

In conclusion, Dougherty (2004) led a writing review to research the connections between the advancement and business execution of SMEs. After a broad audit of a few investigations on development and SMEs execution, he inferred that not much observational information was discernible, let alone in Thailand. Consequently, he prescribed further research to investigate these connections.

H2: There is an association between innovation and business performance in SMEs of Thailand.

Knowledge Management vs Innovation

In KBT, Taherparvar et al. (2014) related information assets to development and contended that these assets decide the limit of the firm to advance. Also, development is the change of information into new items, practices, and procedures and administrations. Thus, the impact of KM through obtaining, sharing, and use of advancement is recognized in the referred to writing. To be explicit, information procurement is the way toward acquiring information that is accessible someplace and it alludes to the utilization of existing information or catching new information.

Inside, the organization can procure information utilizing express information from existing reports or the unsaid information on its kin into its storehouses. Remotely, a business can gain information by utilizing people with the necessary information and by buying information resources, for example, licenses and research archives. Plus, a cozy relationship with

clients may permit business supervisors to have an immediate and quicker information stream and this may assist them with improving their capacity to catch the clients' information, rivals' activities and conduct, advertise patterns, and different advancements (Maurer et al., 2011).

Emphasize that when there is securing new information inside the organization, the limit of the representatives' increments and they become progressively ready to change the new information and produce new thoughts. Thusly, the supplies of information increment and the business make the most of new open doors by applying and misusing procured information to deliver creative outcomes. Researchers affirmed the connection between information procurement and advancement. For example, data gained from coalition accomplice's influences information production of the association, which thusly prompts advancements. Bogers and West (2012) affirmed a positive and critical connection between information securing and mechanical advancement (procedure and item development). Literature also likewise uncovered a positive and critical connection between information securing and authoritative advancement.

It tends to be expressed that information sharing is the trading of information, encounters, and aptitudes over the entire association. Individuals from the association offer and trade information, inciting their degree of cooperation to increment. This adds to the improvement of creative thoughts. Hence, a positive affiliation can be expected between information sharing and advancement (Tether & Tajar, 2008). In conclusion, information application (responsiveness to information) is vital. It is the usage of procured information to settle on helpful choices with respect to business. In this way, information applications can invigorate inventive exercises. Authentic confirmations showed from a few examinations have discovered a positive and noteworthy connection among KM and advancement. For example, Chiaroni et al. (2011) study uncovered that the manner in which information is overseen decides the accomplishment of developments in organizations. Further, a successful KM process through information creation, stockpiling, appropriation and application adds to development in the firm.

Accessible information got from some experimental investigations have inspected the previously mentioned relationship in the SMEs. This

was upheld by the investigation of García-Morales et al. (2008) who uncovered that KM procedure underpins advancement in SMEs. In any case, Shujahat et al. (2019) noticed that the exploration of KM application in SMEs, especially in creating nations, are not many. That is the reason more research proposed to enhance the exact investigations on the connections among KM and development in SMEs. Because of restricted research regarding the matter, there was a need to examine this relationship in Thailand SMEs.

H3: Knowledge management and innovation having a positive association with the performance of SMEs in Thailand.

Knowledge Management, Innovation and Business Performance

A few scientists have distinguished a hole in the advancement field, particularly in the assurance of the basic factors that directly affect development to improve business execution. That is the reason Wadhawa and Rao (2003) prescribed to the chiefs with the craving to expand their business execution to seek after developments so as to stay serious since they are working in an evolving situation. Right now, affirmed that the accomplishment of unrivaled business execution necessitates that powerful KM prompts development. For example, compelling KM through information procurement, information sharing and application is significant on the grounds that it comes to help the board dynamic to upgrade business execution and increment the limit with regards to inventiveness and advancement.

Basing on KBT, Goh (2005) expressed that when information is adequately overseen in various degrees of the association, it prompts the capacities that are one of a kind which thusly adds to better execution through advancement. The examination by K. H. Kang and Kang (2009) likewise uncovered that information the board forms have a roundabout huge effect on business execution through development in the banking industry while similar outcomes in media transmission and data innovation industry (Tether & Tajar, 2008).

H4: Innovation acts as a mediator on the association between knowledge management and business performance in SMEs of Thailand.

Research Methods

The aim associated with the present study is to explore the link among knowledge management and

business performance in the SMEs of Thailand. An additional goal was to explore the mediating role of innovation among the link of knowledge management and business performance of the SMEs in Thailand. The employee of the research and development department of the SMEs industry that is operating is the respondents of the study. The data were extracted from the respondents by using valid questionnaires and PLS-SEM was utilized for data analysis. For data collection, around 740 surveys were distributed among the employees of the research and development department of SMEs in Thailand but only 520 valid questionnaires were received and used for analysis and that represents approximately 70.27 percent. In addition, the main variable namely business performance (BP) has 12 items while independent variable namely knowledge management (KM) has 16 items and mediating variable such as innovation (IN) has 5 items. The conceptual framework is given as under in Figure 2.

Findings

The findings show the convergent validity regarding items correlation, discriminant validity regarding constructs correlation and path analysis regarding hypotheses testing. Firstly, convergent validity was presented in the results that exposed there is a high correlation among the items and convergent validity is proved. Table 2 given below show the statistics of convergent validity in terms of Alpha and loadings along with the CR and AVE

Secondly, the findings show the discriminant validity with the help of Fornell Larcker regarding the correlation among the constructs and statistics show that discriminant validity is proved because links with constructs its self is stronger than other constructs used in the study. Table 3 given below shows the Fornell Larcker method of discriminant validity.

The second way to test the discriminant is cross-loading that describes the correlation among the constructs and statistics show that discriminant validity is proved because links with constructs its self is stronger than other constructs used in the study. Table 4 given below shows the cross-loadings method of discriminant validity.

The second way to test the discriminant is the Heterotrait and Monotrait ratio (HTMT) that describe the correlation among the constructs and statistics show that discriminant validity is proved because values are lower than 0.90. Table 5 given below shows the HTMT ratio of discriminant validity.

Conceptual Framework

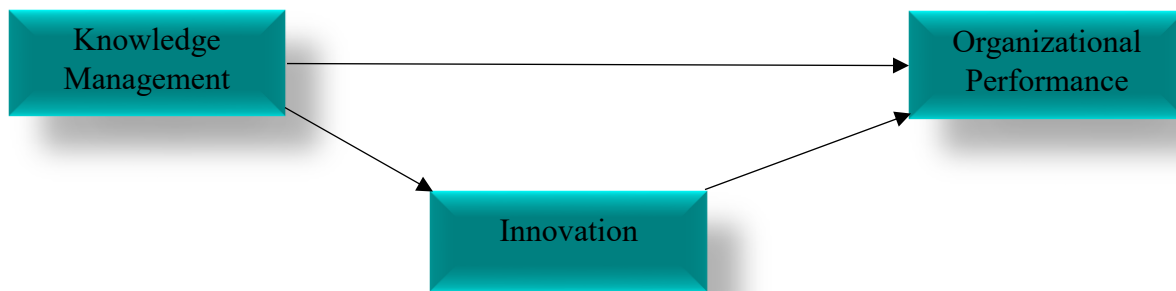


Figure 2. Conceptual Framework

. Table 2. Convergent Validity

Constructs	Items	Loadings	Alpha	CR	AVE
Business Performance	BP1	0.903	0.924	0.933	0.567
	BP10	0.611			
	BP2	0.746			
	BP3	0.904			
	BP4	0.901			
	BP5	0.902			
	BP6	0.637			
	BP7	0.603			
	BP8	0.627			
	BP9	0.639			
	BP12	0.690			
	Innovation	IN1			
IN2		0.873			
IN3		0.879			
IN4		0.891			
IN5		0.865			
Knowledge Management	KM1	0.861	0.965	0.969	0.659
	KM10	0.690			
	KM11	0.762			
	KM12	0.821			
	KM13	0.743			
	KM14	0.792			
	KM15	0.862			
	KM16	0.849			
	KM2	0.834			
	KM3	0.838			
	KM4	0.820			
	KM5	0.827			
	KM6	0.796			
	KM7	0.837			
	KM8	0.822			
	KM9	0.819			

Table 3. Fornell Larcker

	BP	IN	KM
BP	0.753		
IN	0.424	0.873	
KM	0.837	0.437	0.812

Table 4. Cross-loadings

	BP	IN	KM
BP1	0.903	0.331	0.794
BP10	0.611	0.297	0.378
BP12	0.690	0.318	0.467
BP2	0.746	0.372	0.822
BP3	0.904	0.335	0.787
BP4	0.901	0.332	0.801
BP5	0.902	0.329	0.792
BP6	0.637	0.330	0.429
BP7	0.603	0.315	0.439
BP8	0.627	0.283	0.382
BP9	0.639	0.336	0.418
IN1	0.341	0.854	0.328
IN2	0.375	0.873	0.393
IN3	0.345	0.879	0.365
IN4	0.372	0.891	0.394
IN5	0.408	0.865	0.415
KM1	0.713	0.358	0.861
KM10	0.515	0.343	0.690
KM11	0.634	0.349	0.762
KM12	0.648	0.377	0.821
KM13	0.643	0.331	0.743
KM14	0.593	0.356	0.792
KM15	0.708	0.355	0.862
KM16	0.758	0.371	0.849
KM2	0.737	0.356	0.834
KM3	0.731	0.340	0.838
KM4	0.703	0.363	0.820
KM5	0.645	0.374	0.827
KM6	0.596	0.350	0.796
KM7	0.733	0.341	0.837
KM8	0.740	0.359	0.822
KM9	0.713	0.356	0.819

Table 5. Heterotrait and Monotrait Ratio

	BP	IN	KM
BP			
IN	0.465		
KM	0.827	0.462	

The hypotheses of the current study are test by using the path analysis and statistics exposed that the link is positive among the knowledge management and business performance because the beta has a

positive sign. In addition, the link among the knowledge management and business performance is significant because the probability value is lower than 0.05 and the t-value is higher than 1.64. Moreover, if 1 unit increase in knowledge management, the business performance will also change by 0.805 units and vice versa and accept the H1. The statistics also exposed that the nexus is positive among innovation and business performance because the beta has a positive sign. In addition, the link among the innovation and business performance is significant because the probability value is lower than 0.05 and the t-value is higher than 1.64. Moreover, if 1 unit increase in innovation, the business performance will also change by 0.072 units and vice versa and accept the H2. The figures also show that the link is positive among knowledge management and innovation because the beta has a positive sign. In addition, the link among knowledge management and innovation is significant because probability value is lower than 0.05 and the t-value is higher than 1.64. Moreover, if 1 unit increase in knowledge management, the innovation will also change by 0.0437 units and vice versa and accept the H3. The statistics also exposed that the innovation has positively mediated among the link of knowledge management and business performance because the beta has a positive sign. In addition, the mediation is significant because the probability value is lower than 0.05 and the t-value is higher than 1.64. Moreover, if 1 unit increase in innovation, the link among the knowledge management and business performance will also change by 0.032 units and vice versa and accept H4. Table 6 mentioned below show the path analysis.

Discussions

The findings show that knowledge management in SMEs has positive nexus with business performance in Thailand. The outcomes also include that the innovation has a positive impact on the business performance as well as positively mediates among the links of knowledge management and business performance of the SMEs in Thailand. The SMEs in Thailand are keen to implement the innovation in the organization and also the employee of SMEs have enough knowledge to enhance the business performance thus the innovation also enhance the knowledge of the employee and further improve the performance of SMEs. These findings give the guideline to the upcoming researchers while investigating this area in the future.

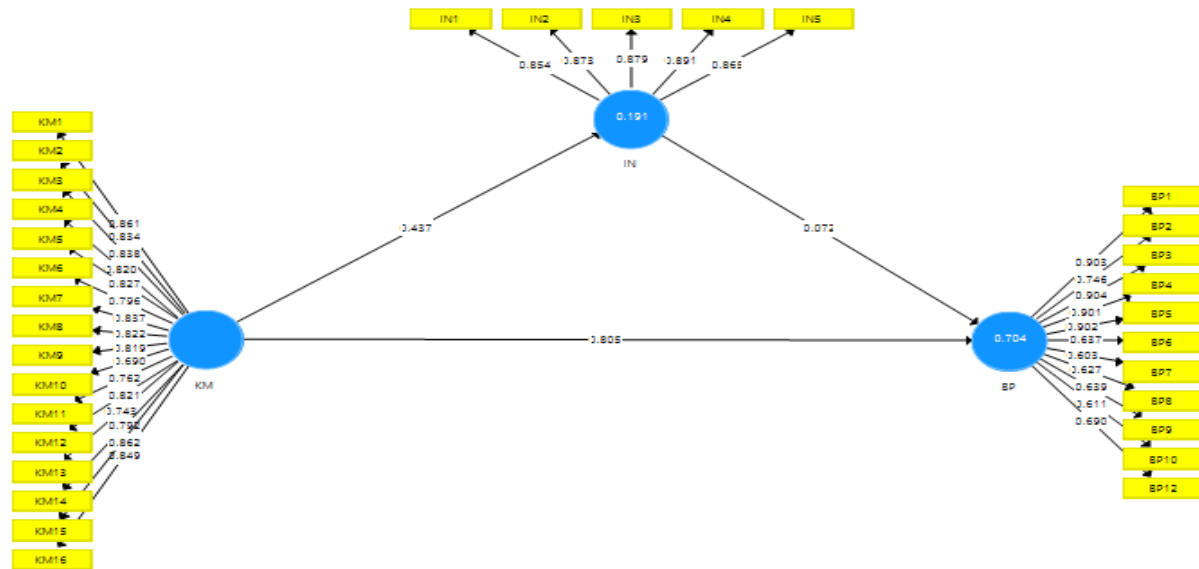


Figure 3. Measurement Model Assessment

Table 6. Path Analysis

	Beta	S.D.	t-values	p-values	L.L.	U.L.
IN -> BP	0.072	0.040	1.800	0.036	0.000	0.135
KM -> BP	0.805	0.024	32.916	0.000	0.765	0.847
KM -> IN	0.437	0.053	8.283	0.000	0.349	0.521
KM -> IN -> BP	0.032	0.018	1.756	0.040	0.000	0.061

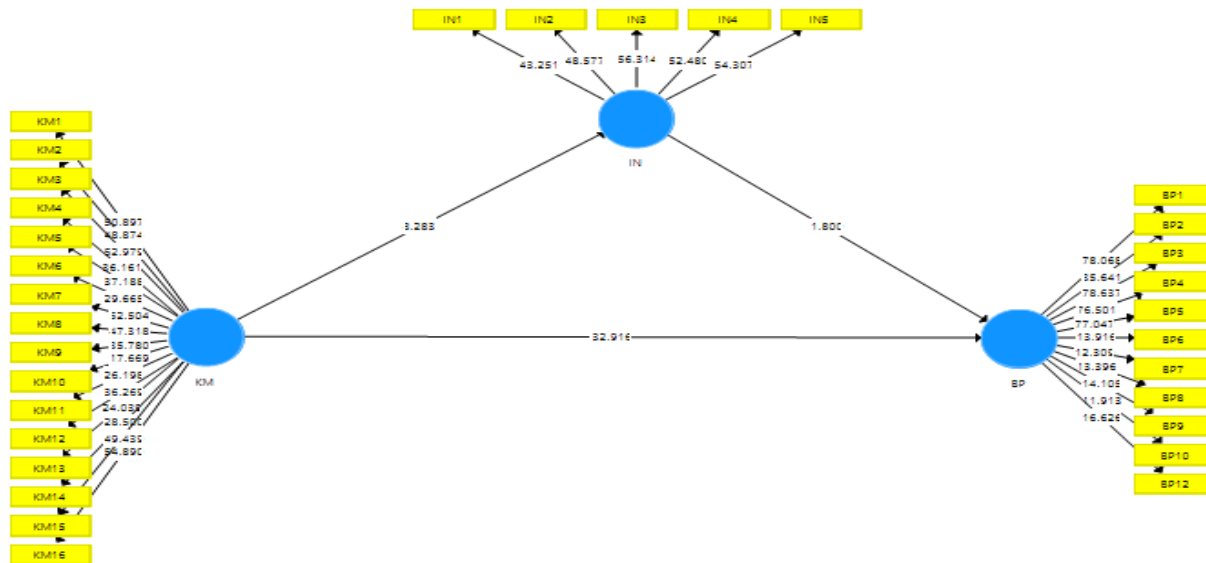


Figure 4. Structural Model Assessment

Conclusion

This study concluded that the SMEs in Thailand are keen to implement the innovation in the organization

and also, the employee of SMEs have enough knowledge to enhance the business performance thus the innovation also enhance the knowledge of

the employee and further improve the performance of SMEs. These results also provide help to the policy developers that they should develop reasonable regulations for the innovation implementation in the organizations that enhance business performance.

Limitations and Future Directions

The present study recommended that prospective studies should explore other factors than innovation and knowledge management to predict business performance. In addition, the findings are generalized only on the SMES and future studies should expand their study scope by adding more sectors. Moreover, the existing study ignored the cross-country analysis and future study should include more countries to expand the scope. Furthermore, this study takes only one mediation and no moderator and further study should concentrate on these limitations.

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