

# Examining the Impact of The Motivation and Trust on the SMEs' Innovation Capability: The Mediating Role of Knowledge Sharing

Boriboon Chalong<sup>1</sup>

***Abstract**--The study is planned to examine the impact of the trust and motivation on the innovation capability of any organization. Additionally, the study has also examined the mediating role of knowledge sharing in the relationship between the trust, motivation and innovation capability. The study has used the survey based methodology and we had distributed total 450 questionnaires among the managers and CEO's, and we have received back total 410 questionnaires out of 410 eight questionnaires were having some missing information so by following the study of Hair et al. (2017) we excluded those eight questioners and used 402 questionnaires for further analysis, the response rate for this survey was 89.3%. according to the study of Hair et al. (2017) the minimum response rate for the analysis must be 33%. The results indicate that the managers and owners of the SMES can improve innovation capability through promoting knowledge sharing activities. A comprehensive framework of research has been offered by the current study for implementing sharing of knowledge to increase innovation capability. It has been attempted by several firms to develop a knowledge sharing environment. However, the value of knowledge sharing has been ignored in developing innovation capability. Owners and managers of SMES should work on promoting an environment for effective knowledge sharing to achieve a competitive edge. This can be done through increasing the willingness of employees for knowledge sharing.*

*Keywords*--Trust, motivation, knowledge, innovation Indonesia

---

## I. Background

In the 21<sup>st</sup> century, internationally for the survival in business world the most important component is known as the innovation capability. Now in any country for the growth or success of any firm the innovation capability is very important. It's clearly mentioned that the innovation capability is beneficial for firm in several ways such as it helps in reducing the overall cost of firm, it creates the product differentiation in competitive market, also help to uplift the services and produce best quality products. According to Rajapathirana and Hui(2018) in present competitive environment, it is difficult for a firm to survive if they don't put into practice their capabilities for the development. They have also claimed that the managers (Dangelico et al.,2017). So, in general, for the economic growth the innovation capability is known as the main source of competitive success.

In simple words for a successful firm the main factor is innovation capability. Many scholars have made different studies for the enhancement of innovation capabilities(Najafi-Tavani et al., 2018). In addition to this, according to literature in this era for business establishment, extension and its rapid growth more innovative ideas are required. It has also stated that countries development and growth is ultimately attached with the innovation capability. According to the Child et al. (2017) who is a scholar of entrepreneur research has confirmed that for the economic development the innovation capability is a

---

<sup>1</sup> College of Innovation and Management, Suan Sunandha Rajabhat University, Thailand  
E-mail: Boriboon.ch@ssru.ac.th

key source, and it helps in reducing the instability of economic environment. In the present business structure, the firm who don't have any innovative capability will be eliminated from the business at early stages. Therefore, the business survival with innovation capability indicates the business success. In addition to this for the achievement of sustainable competitive advantages and business extension the innovation capability plays a key role (Diaz-Moriana et al., 2018). According to the literature the firms with innovative capabilities are more flexible and have higher capacity to deal with changes. And in case of instability in business climate the innovation capability give shelter to small firms (Foss & Saebi, 2017). In competitive market the small firms can create a difference from their competitors by creating new opportunities.

In the present era of knowledge, the biggest challenges are tempestuous business environment risk and drastic change in technology (Chienwattanasook & Jermstiparsert, 2019; Haseeb, Hussain, Slusarczyk, & Jermstiparsert, 2019). In present situation, business survival is difficult for small firms (Ye & Grant, 2017). In addition to this according to different studies the innovation capability plays a role of weapon for sustainable business growth (Behnam et al., 2018). In simple words for the enhancement of growth and competitiveness the sustainable development provides opportunities, because for innovative efforts of small firms it can be a source of inspiration. The SME's in Indonesia are not associated with industrial resources and get inadequate input such as supervisor support, motivation and trust from HR (Rasheed et al., 2017).

Further there is a significant role of supervisor's support on behavior of employee in knowledge sharing with other employees (Jarinto, Jermstiparsert, & Chienwattanasook, 2019). Le and Lei (2019) has stated in their study that firm's innovative capability relies on supervisor support, which plays an important role for the enhancement of knowledge sharing activities to develop the innovative capabilities. Within the firms there is significant role of supervisors which help in developing the shapes and improve the employee skills. There is great influence of supervisors on attitude and behavior of employees in in knowledge sharing, therefore they enhance the innovative capabilities for the development of country (Kim & Park, 2017). In the literature less attention has been given to supervisor's support about knowledge sharing as a result of innovation capability.

### **Hypothesis Development**

The business conducted ways have been entirely redefined in 21<sup>st</sup> century. For the business survival business demands special thoughts towards abilities and innovation capabilities because for the survival, growth and success of organization these tools are very effective (Lau & Lo, 2019). The reason behind is that the innovation is answerable for the establishment of worth, competition and flexibility. Fernando et al. (2019) in their study have stated that innovation capability helps in determining the growth. In business world now a days, for the growth of all the firms and organizations the main foundation is innovation. Innovation is a key indicator behind the global economic growth over the short life cycle of product high speed product development and fast technical advancement (Pettit et al., 2019). In competitive market because of high market pressure organizations always update new business strategies and make sure to their competitors that they have ability to create competitive advantages (Morioka et al., 2017).

Innovation is based on the demands, desires, wants of consumers, technological innovations and competitive pressure, which makes it a complex phenomenon. The factors of innovation are based on the easy availability of rick knowledge, which increase the complexity of innovation (Qu & Li, 2019). Several researchers have defined the capability of innovation. It was claimed by Tseng et al. (2019) that the use of new production aspects in the production system is referred as innovation. The ability to incorporate innovative technologies into practice research and development is referred as the innovation capability. The new technologies are developed in accordance with the needs of the market at a specific time. In the similar way, it was believed by França et al. (2017) that the innovation process is based on activities focused on knowledge. This results in the formation of development practices for modern products. Innovation is substituted as a process of knowledge,

which supports the development of realistic and commercial expectations (Guttentag & Smith, 2017). In simple terms, innovation is the acquisition of knowledge for the creation of new knowledge to develop new products and services. When a new idea or behavior is adopted by an organization, this is also referred as the foundation of innovation (Bos-Nehles et al. 2017).

The main element for improving the economic conditions for every type of country (developing, developed, small, or large) is referred as innovation capability. For the long-term success of every organization, an important aspect is innovation capability (Rajapathirana & Hui, 2018). The innovation capability has become crucial for achieving organizational success because of the changing rules of competition due to complex needs of customers, changes in competition, shortage of product life cycle, and changes in organizational environment (Shahzad et al.,2017).

It has been revealed through previous studies in literature review based on innovation capability that it has several definitions (Saunila, 2016). There is difference in all the definitions, but the theme is common. The innovation capability concept has been highlighted and explained in this chapter along with its mechanism. It is crucial to set a working definition for the concept. Innovation is regarded as the creation, acceptance and utilization of innovative ideas and processes in the production of products/services (Arnold, 2017). The adoption of new behavior or idea is also referred as innovation. Another study has defined innovation as the process of creating, developing, and reinventing new ideas, objects, and practices. According to Nambisan et al. (2017) innovation is a specific change, which is characterized by introducing something new. Moreover, innovation was explained by Asaad and Marane (2016) as the process through which firms involve in manufacturing systems and practice product designs, which are new. According to the research conducted by Kim and Park (2017) a new idea, material, or practices adopted are referred as innovation. Moreover, it was revealed by Foss and Saebi (2017) that a series of processes, which are formulated and managed for the creation and application of knowledge and ideas, is referred as innovation. Based on the literature reviewed the study has proposed the following hypothesis:

H1: TR is in the significant relationship with the INC.

H2: MOT is in the significant relationship with the INC.

It has been argued by researchers that for sharing of expertise, knowledge, and skills among the employees for innovation, trust is an important element (Huang, 2017). It is important to analyze the aspects, which allow employees for sharing their knowledge and expertise because of lack of studies in previous literature. It has been concluded by several researchers that there is a significant association between individual trust in improving the activities of knowledge sharing (Constance et al., 2019). For an increased level of communication, knowledge sharing, and approachability, the basic factor is trust on the employee. The uncertainty level can be reduced and risk taking could be increased along with employees' willingness to share knowledge with colleagues (Berg et al.,2017).

The previous studies have incorporated trust as facilitators in sharing of knowledge. Several researchers believe that trust exists between manager and employees; it results in increased willingness for sharing knowledge at workplace (Mohammed & Kamalanabhan, 2019). Moreover, in the presence of trust, employees willingly listen to each other and accept knowledge from others in the organization. The previous research studies have regarded trust as a weak variable in influencing the effectiveness, efficiency, and performance of the organization. The individual's hope or behavior for selfless benefits is referred as trust by Mao et al. (2019) . The working of employee in an organization is evaluated through the tool of trust. The level of perceptions and personal feelings of employees is referred as trust. Moreover, it is related with the belief for support of the employees. Moreover, when trust exists in an environment, anxiety and fear is less for doing mistakes and making wrong decisions (Javed, 2018). Therefore, this makes employees innovative because of ease. When the level of trust is high in the environment, inventiveness occurs.

Therefore, employees work with relaxation, which results in innovation. The innovation capability is reduced, when there is a lack of trust. Lack of mutual trust between the employees and organization results in high control systems used by the organization based on rules and procedures. This hinders inventiveness and creativity (Rajapathirana & Hui, 2018) . When the level of trust is low and high uncertainty avoidance culture dominates in the environment of the organization. In such an environment, avoidable risks are not taken because of risk-averse attitudes. When the value and effectiveness are proven, then innovation is adopted (Child et al., 2017).

Recently, trust has been used by scholars and it has been suggested that the innovation performance and efficiency of an organization could be improved through increase of trust in the organizational environment (Ye & Grant, 2017). Moreover, it was suggested by (Behnam et al., (2018) that high trust and non-threatening environment allows employees and decision-makers to proceed with innovation strategies. Based on the literature reviewed the study has proposed the following hypothesis:

H3: KS is in the significant relationship with the INC.

H4: MOT is in the significant relationship with the KS.

H5: TR is in the significant relationship with the KS.

The individual's willingness to accept responsibilities and share expertise is increased with the existence of trust. This enhances the ability of an individual to become creative and innovative. It was proclaimed by Rasheed et al.(2017) that management can be benefited from sharing of knowledge through a rich culture with trust. Moreover, it was argued by Le and Lei (2019) that the chances of a firm to fail increase with low level of trust. This restricts the efforts for personal empowerment and activities of knowledge sharing for achieving success. Further, it was claimed by Kim and Park (2017) that the relational between managers and employees can develop an environment for sharing ideas and knowledge to achieve the set goals. It was highlighted by Lau and Lo (2019) that the results of knowledge sharing are based on individual's assessment. However, these are also based on the work tasks of individual and contextual factors including trust level between superiors and subordinates and employees' interaction.

In case of doing something new, risk taking or another initiative, employees demand trust for not facing fear in case of any mistake. For achieving positive results through sharing of knowledge, there is a need for employees to trust their firms. The organization must empower its employees for increasing their willingness to take part in activities for knowledge sharing. This would help employees in exploring new opportunities (Pettit et al.,2019). It has been suggested that the relation between knowledge sharing and trust is stronger for employees with high trust in the respective organizations. Therefore, it is predicted that when employees have high level of trust in their managers, the outcomes of knowledge sharing will be improved (Morioka et al., 2017). Altogether, rare studies have indicated a positive association between innovation capability and knowledge sharing. The dairy SMEs can be supported through trust for achieving success in their business.

Several studies have regarded innovation as a valuable and effective variable in knowledge sharing among employees (Hussein et al.,2016). A different perspective is offered by the literature on motivation, which could be used by the organization to develop an association with the employees. At one side, a strong relation can be established through motivation between the firm and its employees to increase the practices of knowledge sharing (Rasheed et al.,2017). Alternatively, employees are involved in motivation for sharing knowledge that represents innovation capability. The evidence is provided by increased discussion on the significant role of motivation on activities of knowledge sharing (Fernando et al.,2019). Moreover, it was argued by Pettit et al. (2019) that individual motivation is required for developing sharing of knowledge. Without it, knowledge sharing is rarely developed. The most important and factor, which has been studied to support the sharing of knowledge and expertise, is motivation (Moriokab et al.,2017).

In the contemporary business environment, a powerful and valuable tool for high quality production of firms is knowledge. For increasing the production level, there is need for a firm to develop and sustain its factors of motivation in the organization (Qu & Li, 2019). The resources of a firm, which are used to develop innovation capability through sharing of knowledge, are referred as motivation. Alternatively, it can be considered as a tangible factor, which increases the capability of innovation (Tseng et al.,2019). The employees of a firm are allowed to share their knowledge and expertise through motivation factors in relation to the need of firms and related activities. It has been indicated by several studies that the commitment and outcomes of the firms could be improved through motivation. There is a significant association between knowledge sharing and motivation (França et al.,2017). Further, the knowledge share could be facilitated by motivation. Further, it can create an influence on the firm's innovation capability. It has been stated by researchers that the lack of motivation results in pain for the employees to share their expertise and knowledge. It was mentioned by Guttentag and Smith (2017) that lack of motivation results in resistance by the employees for sharing their knowledge and expertise. The perceived power, which creates an influence on sharing of knowledge, is referred as factor of motivation. The innovation capability could be improved by sharing of knowledge through motivation (Rajapathirana & Hui, 2018). Concluding, positive outcomes are achieved by trust and motivation when linked with sharing of knowledge in general and specifically. The innovation capability is improved through trust and motivation. It helps in prevention of hurdles and failure as it improves the level of confidence for contributing to the success of SMEs. Moreover, dairy SMEs are given alert for survival in the business. Theoretically, there is a positive association between trust, sharing of knowledge, motivation, and innovation capability. Based on the literature reviewed the study has proposed the following hypothesis :

H6: KS mediates the between the TR and INC.

H7: KS mediates the between the MOT and INC.

## II. Methodology

For data collection of this study we have used quantitative approach and a structured questionnaire. SME's of Indonesia is the targeted population for this study. For sample selection we have used the convenient sampling technique because by taking other samples the finding cannot be generalized for this study. As we select the appropriate technique according to the context of study. We have collected the information from the CEO and executives of Indonesian SME's. by following the suggestions of Junoha et al. (2019) we have conducted a door to door survey for data collection. We had distributed total 450 questionnaires among the managers and CEO's, and we have received back total 410 questionnaires out of 410 eight questionnaires were having some missing information so by following the study of Hair et al. (2017) we excluded those eight questioners and used 402 questionnaires for further analysis, the response rate for this survey was 89.3%. according to the study of Hair et al. (2017) the minimum response rate for the analysis must be 33%.

Partial least square structural modeling (PLS-SEM) is basically statistical procedure we use to study the multivariate relations among different observed and latent variables. In terms of data analysis, the significant advantage of using PLS is it can easily deal with multiple independent and dependent variables at the same time and is capable to deal with multicollinearity issue among the explanatory variables. It makes the strong predictions, can do the screening of missing data and directly make the independent latent variables by using the sources of depended variables.

## III. Results

The researcher has made discussion about the assessment of outer model in this section. The relations between indicators and their latent variables can be explained by the outer models. Further we can divide the outer model in two different parts that is reflective and formative blocks. In PLS analysis the assessment of outer model is the first approach.

The outer model can assess each variables items or components which can determine that how items can be loaded theoretically and linked with their respective constructs (Muneer et al., 2019). In simple words the outer model analysis checks that the construct is measured by the survey items which they were supposed to measure and make sure their validity and reliability.

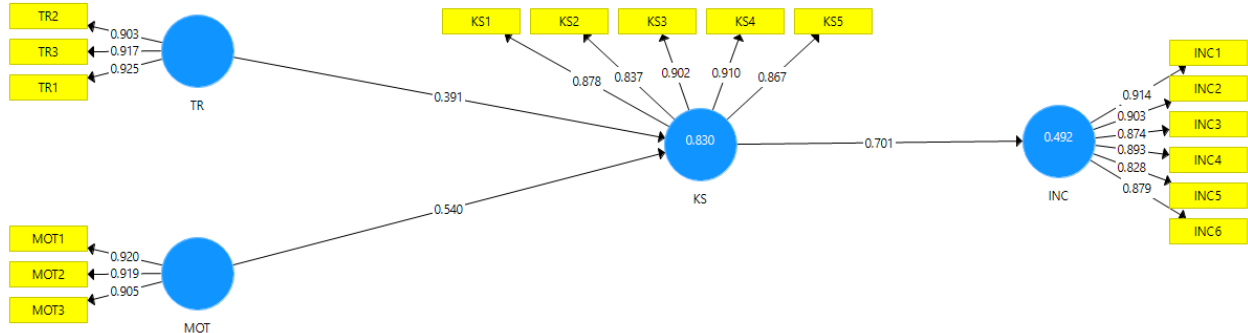


Figure 1: Measurement Model

Table 1: Outer Loading

	INC	KS	MOT	TR
INC1	<b>0.914</b>			
INC2	<b>0.903</b>			
INC3	<b>0.874</b>			
INC4	<b>0.893</b>			
INC5	<b>0.828</b>			
INC6	<b>0.879</b>			
KS1		<b>0.878</b>		
KS2		<b>0.837</b>		
KS3		<b>0.902</b>		
KS4		<b>0.910</b>		
KS5		<b>0.867</b>		
MOT1			<b>0.920</b>	
MOT2			<b>0.919</b>	
MOT3			<b>0.905</b>	
TR2				<b>0.903</b>
TR3				<b>0.917</b>
TR1				<b>0.925</b>

In the analysis of PLS for the evaluation of outer model the two key measures are the validity and reliability. So, we have examined the values of CR and Cronbach's alpha for all the constructs and their results are indicated in Table 3, which shows that values of Cronbach's alpha and CR are greater than the recommended value that is 0.70. the range of CR values in this study is 0.83- 0.91 which shows the measurement models (MM)reliability. The point at which two different measures of similar construct are linked with each other theoretically is known as convergent validity. Whereas the measurement of convergent validity shows that it is associated with the other measures of similar construct (Hair et al.,2014). The value of

Average variance extracted were used with slandered value of 0.5 and above for the identification of measurement convergence elements (Hair et al.,2017).

Table 3: Reliability

	<b>Cronbach's Alpha</b>	<b>rho_A</b>	<b>CR</b>	<b>(AVE)</b>
<b>INC</b>	<b>0.943</b>	<b>0.944</b>	<b>0.955</b>	<b>0.778</b>
<b>KS</b>	<b>0.926</b>	<b>0.928</b>	<b>0.944</b>	<b>0.773</b>
<b>MOT</b>	<b>0.902</b>	<b>0.904</b>	<b>0.939</b>	<b>0.837</b>
<b>TR</b>	<b>0.902</b>	<b>0.903</b>	<b>0.939</b>	<b>0.837</b>

The discriminant validity is concerned with the level at which one construct is different from the other construct in simple words the construct measures which are not associated with each other. For the assessment of discriminant validity, the conventional approach is Fornell-Larcker criterion.

Table 3: Validity

	<b>INC</b>	<b>KS</b>	<b>MOT</b>	<b>TR</b>
<b>INC</b>	0.882			
<b>KS</b>	0.701	0.899		
<b>MOT</b>	0.682	0.896	0.905	
<b>TR</b>	0.666	0.883	0.900	0.905

Earlier we have performed the validity and reliability test for checking the results of outer model. In validity and reliability test we assess the ability of MM and their relations among different items of present study. Before running the structural model we must examine the multicollinearity between explanatory variables (Fornell & Larcker, 1981).

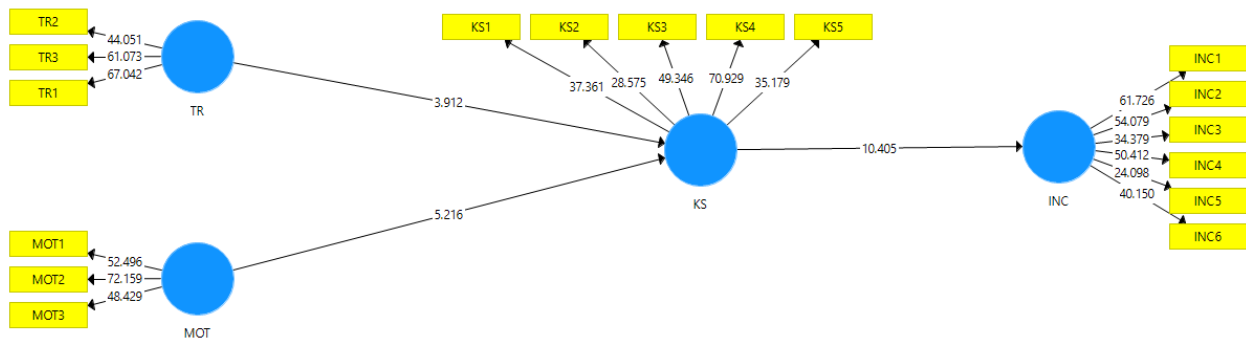


Figure 2: Structural Model

We have also carried out the systematic model analysis for testing the all the hypotheses and providing the results in detail. The inner model evaluation starts with investigating the direct associations between dependent and independent variables. We have examined the path coefficients size by using the PLS-SEM Algorithm. And we have examined the significance of relations by using the bootstrapping procedure in the Smart-PLS 3.0.

Table 4: Direct Results

	<b>(O)</b>	<b>(M)</b>	<b>(STDEV)</b>	<b>( O/STDEV )</b>	<b>P Values</b>
<b>KS -&gt; INC</b>	0.701	0.704	0.067	10.405	<b>0.000</b>
<b>MOT -&gt; INC</b>	0.379	0.380	0.083	4.553	<b>0.000</b>
<b>MOT -&gt; KS</b>	0.540	0.539	0.104	5.216	<b>0.000</b>

<b>TR -&gt; INC</b>	0.274	0.276	0.075	3.683	<b>0.000</b>
<b>TR -&gt; KS</b>	0.391	0.393	0.100	3.912	<b>0.000</b>

With indirect mediation effect the relation between dependent and independent variable can be occurred, which is basically a second condition for significant relation (Basheer et al.,2019). Which infect shows the independent variable effect on mediator and then mediator effect on dependent variables. So, if the effect on independent variable on dependent variable through mediator is not significant then it shows that there is no mediation effect of mediator (variable).

Table 5: Mediation

	(O)	(M)	(STDEV)	( O/STDEV )	P Values
<b>MOT -&gt; KS -&gt; INC</b>	0.379	0.380	0.083	4.553	<b>0.000</b>
<b>TR -&gt; KS -&gt; INC</b>	0.274	0.276	0.075	3.683	<b>0.000</b>

The coefficient of determination that is also known as R square is commonly used method for the assessment of conceptual model of endogenous latent variables. According to the study of Hair et al. (2017) the values of R square 0.27, 0.13 and 0.02 shows the significant, moderate and weak association respectively. The ability of model's predictive relevance is another assessment of SM.

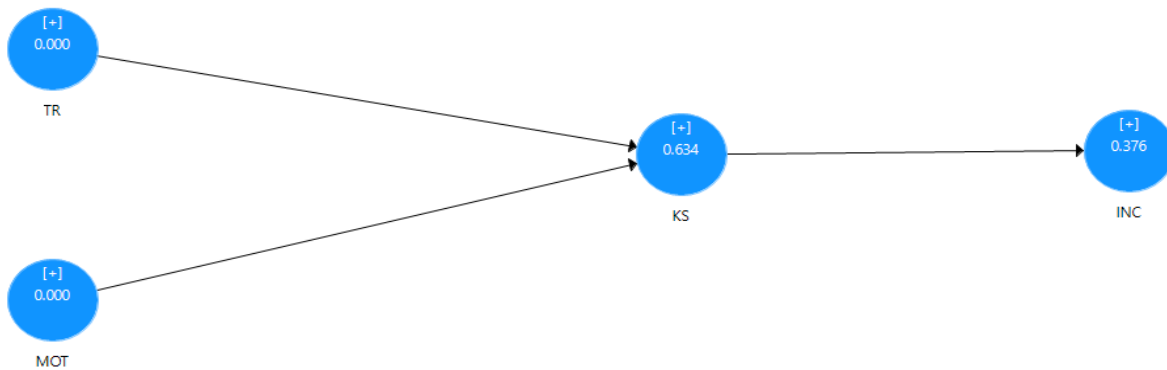


Figure 3: Blindfolding

Table 6: R and Q-square

	SSO	SSE	Q <sup>2</sup>	R Square
<b>INC</b>	1302.000	813.043	0.376	0.492
<b>KS</b>	1085.000	397.220	0.634	0.830

By using the Stone-Geiser's Q2 we have carried out the assessment of predictive relevance which can be measured with the help of blindfolding procedure.

#### IV. Conclusion

Practically, the understanding of SMES has been increased through the research findings in terms of innovation capability and sharing of knowledge. Moreover, to make the sharing of knowledge between managers and employees simple, there is a need to increase resources by the managers for improving the structural and relational capital. This would contribute to the behaviors of knowledge sharing for innovation capability. It has been revealed by the results that there is a need to improve motivation, increase training, and development by the managers for development of knowledge sharing and sustaining among the employees. The support of supervisor and resources are required, which increase the association between employees in



Indonesia's SME sector. In this respect, seminars could be arranged by the owners and managers. Moreover, training sessions and face-to-face meetings could be conducted with professionals to improve the knowledge of employees. This will improve the interaction among employees.

Moreover, employees could be facilitated by managers for establishing formal and informal channels of communication, social events, and training sessions. This would result in making the relationship strong among employees for sharing knowledge and capability of innovation. It has been found by the study that there is a strong influence of training and development, support of supervisor, motivation, industry cluster resources on sharing of knowledge. Moreover, the role of training and development, motivation, ICT and industry cluster resources has been highlighted in improving innovation capability. Thus, there is a need for the owners and managers of SMES to promote training and development, increase motivation for sharing of knowledge to bring innovation capability.

## REFERENCES

- [1] Arnold, M. (2017). Fostering sustainability by linking co-creation and relationship management concepts. *Journal of Cleaner Production*, 140, 179-188.
- [2] Asaad, Z., & Marane, B. (2016). *How Does Information Technology Capability Shape the Relationship between Organizational Culture and Innovation Capability in Manufacturing Sectors?* Paper presented at the Conference Book of Proceeding, 17th International Scientific Conference on Economic and Social Development—"Managerial Issues in Modern Business"—Warsaw, Poland.
- [3] Basheer, M., Siam, M., Awn, A., & Hassan, S. (2019). Exploring the role of TQM and supply chain practices for firm supply performance in the presence of information technology capabilities and supply chain technology adoption: A case of textile firms in Pakistan. *Uncertain Supply Chain Management*, 7(2), 275-288.
- [4] Behnam, S., Cagliano, R., & Grijalvo, M. (2018). How should firms reconcile their open innovation capabilities for incorporating external actors in innovations aimed at sustainable development? *Journal of Cleaner Production*, 170, 950-965.
- [5] Berg, S. T. S., Grimstad, A., Škerlavaj, M., & Černe, M. (2017). Social and economic leader-member exchange and employee creative behavior: The role of employee willingness to take risks and emotional carrying capacity. *European Management Journal*, 35(5), 676-687.
- [6] Bos-Nehles, A., Bondarouk, T., & Nijenhuis, K. (2017). Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services. *The International Journal of Human Resource Management*, 28(2), 379-398.
- [7] Chienwattanasook, K. & Jermstittiparsert, K. (2019). Effect of Technology Capabilities on Sustainable Performance of Pharmaceutical Firms in Thailand with Moderating Role of Organizational Culture. *Systematic Reviews in Pharmacy*, 10(2), 188-197.
- [8] Child, J., Hsieh, L., Elbanna, S., Karmowska, J., Marinova, S., Puthusserry, P., . . . Zhang, Y. (2017). SME international business models: The role of context and experience. *Journal of world business*, 52(5), 664-679.
- [9] Constance, N. W., Zawawi, D., Karim, J., Mansor, S. A., Sentosa, I., & Yusuf, R. N. R. (2019). Supervisory Justice, Organizational Citizenship Behavior, and Innovative Behavior: The Mediating Role of Tacit Knowledge Sharing among Nurses.
- [10] Dangelico, R. M., Pujari, D., & Pontrandolfo, P. (2017). Green product innovation in manufacturing firms: A sustainability-oriented dynamic capability perspective. *Business Strategy and the Environment*, 26(4), 490-506.
- [11] Diaz-Moriana, V., Clinton, E., Kammerlander, N., Lumpkin, G., & Craig, J. B. (2018). Innovation motives in family firms: A transgenerational view. *Entrepreneurship theory and practice*, 1042258718803051.
- [12] Fernando, Y., Jabbour, C. J. C., & Wah, W.-X. (2019). Pursuing green growth in technology firms through the connections between environmental innovation and sustainable business performance: does service capability matter? *Resources, Conservation and Recycling*, 141, 8-20.
- [13] Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics: SAGE Publications Sage CA: Los Angeles, CA.
- [14] Foss, N. J., & Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management*, 43(1), 200-227.
- [15] França, C. L., Broman, G., Robert, K.-H., Basile, G., & Trygg, L. (2017). An approach to business model innovation and design for strategic sustainable development. *Journal of Cleaner Production*, 140, 155-166.
- [16] Guttentag, D. A., & Smith, S. L. (2017). Assessing Airbnb as a disruptive innovation relative to hotels: Substitution and comparative performance expectations. *International Journal of Hospitality Management*, 64, 1-10.
- [17] Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*.

- [18] Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*.
- [19] Haseeb, M., Hussain, H., Slusarczyk, B., & Jermsittiparsert, K. (2019). Industry 4.0: A Solution towards Technology Challenges of Sustainable Business Performance. *Social Sciences*, 8(5), 184.
- [20] Huang, K.-P. (2017). Entrepreneurial education: The effect of entrepreneurial political skill on social network, tacit knowledge, and innovation capability. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(8), 5061-5072.
- [21] Hussein, A. T. T., Singh, S. K., Farouk, S., & Sohal, A. S. (2016). Knowledge sharing enablers, processes and firm innovation capability. *Journal of workplace Learning*.
- [22] Jarinto, K., Jermsittiparsert, K., & Chienwattanasook, K. (2019). A Theoretical and Empirical Framework for Knowledge Sharing: An Auto Industry Case-study. *International Journal of Innovation, Creativity and Change*, 10(1), 406-425.
- [23] Javed, B. (2018). *Positive Psychological States and Innovative Work Behavior: The Role of Relational Leadership*. CAPITAL UNIVERSITY OF SCIENCE AND TECHNOLOGY, ISLAMABAD.
- [24] Kim, W., & Park, J. (2017). Examining structural relationships between work engagement, organizational procedural justice, knowledge sharing, and innovative work behavior for sustainable organizations. *Sustainability*, 9(2), 205.
- [25] Lau, A. K., & Lo, W. (2019). Absorptive capacity, technological innovation capability and innovation performance: an empirical study in Hong Kong. *International Journal of Technology Management*, 80(1-2), 107-148.
- [26] Le, P. B., & Lei, H. (2019). Determinants of innovation capability: the roles of transformational leadership, knowledge sharing and perceived organizational support. *Journal of Knowledge Management*.
- [27] Mao, J. Y., Chiang, J. T. J., Chen, L., Wu, Y., & Wang, J. (2019). Feeling safe? A conservation of resources perspective examining the interactive effect of leader competence and leader self-serving behaviour on team performance. *Journal of Occupational and Organizational Psychology*, 92(1), 52-73.
- [28] Mohammed, N., & Kamalanabhan, T. (2019). Interpersonal trust and employee knowledge sharing behavior. *VINE Journal of Information and Knowledge Management Systems*.
- [29] Morioka, S. N., Bolis, I., Evans, S., & Carvalho, M. M. (2017). Transforming sustainability challenges into competitive advantage: Multiple case studies kaleidoscope converging into sustainable business models. *Journal of Cleaner Production*, 167, 723-738.
- [30] Najafi-Tavani, S., Najafi-Tavani, Z., Naudé, P., Oghazi, P., & Zeynaloo, E. (2018). How collaborative innovation networks affect new product performance: Product innovation capability, process innovation capability, and absorptive capacity. *Industrial Marketing Management*, 73, 193-205.
- [31] Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital Innovation Management: Reinventing innovation management research in a digital world. *Mis Quarterly*, 41(1).
- [32] Pettit, T. J., Croxton, K. L., & Fiksel, J. (2019). The evolution of resilience in supply chain management: a retrospective on ensuring supply chain resilience. *Journal of Business Logistics*, 40(1), 56-65.
- [33] Qu, L., & Li, Y. (2019). Research on industrial policy from the perspective of demand-side open innovation—A case study of Shenzhen new energy vehicle industry. *Journal of Open Innovation: Technology, Market, and Complexity*, 5(2), 31.
- [34] Rajapathirana, R. J., & Hui, Y. (2018). Relationship between innovation capability, innovation type, and firm performance. *Journal of Innovation & Knowledge*, 3(1), 44-55.
- [35] Rasheed, M. A., Shahzad, K., Conroy, C., Nadeem, S., & Siddique, M. U. (2017). Exploring the role of employee voice between high-performance work system and organizational innovation in small and medium enterprises. *Journal of Small Business and Enterprise Development*.
- [36] Saunila, M. (2016). Performance measurement approach for innovation capability in SMEs. *International Journal of Productivity and Performance Management*.
- [37] Shahzad, F., Xiu, G., & Shahbaz, M. (2017). Organizational culture and innovation performance in Pakistan's software industry. *Technology in Society*, 51, 66-73.
- [38] Tseng, M.-L., Wu, K.-J., Chiu, A. S., Lim, M. K., & Tan, K. (2019). Reprint of: Service innovation in sustainable product service systems: Improving performance under linguistic preferences. *International Journal of Production Economics*, 217, 159-170.
- [39] Ye, H., & Grant, B. (2017). An investigation of the appropriate marketing strategies to attract more customers, more repeat business, and to launch a new organic product Product.