



# Leader-Team Member Relationship and Supervisory Support on New Product Innovation in Pharmaceutical Business of Thailand: Mediation with Help-Seeking

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## Abstract

A positive degree of a trilogy of workplace relationships benefits a firm in several ways such as it allows collaboration among different members of the sector and also provides a facility of sharing ideas. However, the main objective of this study is to explore the impact of the trilogy of workplace relationships on the innovations of new drugs through the mediating role of help-seeking. This research also aims to identify the individual impact of leader-member, and team-member relationships on the innovation performance of new drugs. Empirical results and suggestions of this research mainly based on data collected from employees of different pharmaceutical firms of Thailand indicate that the role of a trilogy of workplace relations on the innovations of a new drug was significant and positive. Empirical results of this research paper also indicate the mediating role of help-seeking play a crucial role in improving the relationship between the trilogies of workplace relationships and innovation of new drug. Moreover, this study also provides huge benefits to future analysts that they can easily understand the relationship between trilogy of workplace relationships and innovation of new drug products, the findings of this research also provide crucial opportunities for fellow researchers. Further managerial and practical applications along with limitations and future recommendations are also explained.

**Keywords:** Trilogy of workplace relationships, leader-member relationship, team-member relationship, supervisory support, helps seeking, innovation

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## 1 Introduction

To remain competitive in place of global market, organization must require remaining innovative with developing new processes and products. Employees carried out various cognitive and physical actions and their sum described as process of innovation at the workplace, which further used to accomplish

many tasks which assigned as interdependent innovative required for the development of innovation as well as novel ideas novel ideas or innovation (Mueller & Kamdar, 2011). Research described that the innovative ideas not generated only in specific unit related to work but also developed at the floor of work when firms deal with problems of work (Amabile,

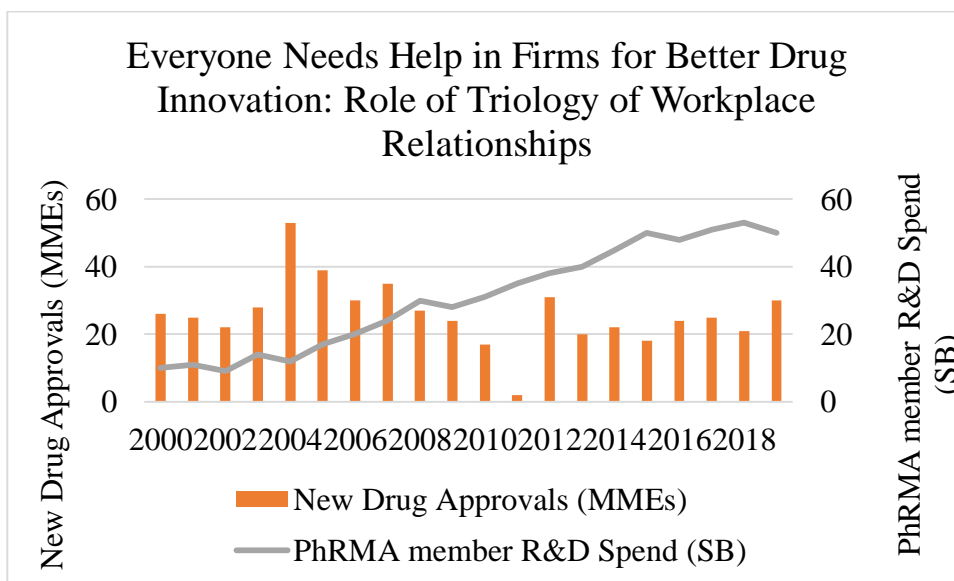


2012). In context of social base, employees learn or work together along with consult each other in way of informal and solve the difficulties; such relationship comes in member leader relationship. In reality, during solving the problems of the work the strategy to seek help considers as important aspects for solving and innovative new drugs (van der Rijt et al., 2013). The process of help seeking consider as collaboration from leaders as well as from employees for the innovation of new drugs

along with solve the problems of the task (Gerken, 2016). Following table 1 highlighted the better drug innovation which approved by the members of the pharma company. Similarly, graph 1 also show the trend of approval by pharma members about the innovation of new drug. This show that trend varies with years and highest trend showed in 2019, 20007 and 2012. Table 1 New Drug Approvals (MMEs) by PhRMA member R&D Spend (SB)

Everyone Needs Help in Firms for Better Drug Innovation: Role of Triology of Workplace Relationships		
years	New Drug Approvals (MMEs)	PhRMA member R&D Spend (SB)
2000	26	10
2001	25	11
2002	22	9
2003	28	14
2004	53	12
2005	39	17
2006	30	20
2007	35	24
2008	27	30
2009	24	28
2010	17	31
2011	2	35
2012	31	38
2013	20	40
2014	22	45
2015	18	50
2016	24	48
2017	25	51
2018	21	53
2019	30	50





Graph 1 New Drug Approvals (MMEs) by PhRMA member R&D Spend (SB)

Studies provethatresearchers have paidsignificant attention to explore the seeking help factors with mediate the impact of team relationship, leader-member relation and supervisory support for innovation of new drugs (Cavallo, Zee, & Higgins, 2016).

- To analyze the impacts of Leader Member Relationships on New Drug Innovation
- To analyze the impacts of Team Member Relationship on New Drug Innovation
- To analyze the impact of Supervisory Support on New Drug Innovation
- To examine the mediating effect of Help Seeking on impact of Leader Member Relationships on New Drug Innovation.
- To examine the mediating effect of Help Seeking on impact of Team Member Relationship on New Drug Innovation.
- To examine the mediating effect of Help Seeking on impact of Supervisory Support on New Drug Innovation.

The next section of the study includes the review of the studies for formulating the hypothesis. After that, methodology will be discussed. Firth section of the study includes analysis of this study which proved hypothesis as positive or negative. After that, in final

section the discussion and limitation of the e study will be explained.

## 2 Literature Review

### 2.1 Theory

Innovation and creativity is a new concept in drug innovation. past studies link with classical theory which depict the relationship among seeking the help and creativity with the help of motivation as intrinsic and cognition as creative (Sihvonen & Pajunen, 2019). According to theory of creativity, innovation of new products occurs when employees gather information and then use that information to make a novel idea or also find the solution of any problem. Related to such kind of seeking the information with theory of creative configuration. According to this, employees remain engaged in activities of behavioral and cognitive during solving the problems and developing new drugs (Amabile, 2012). Theory of creativity also gave beneficial insight about the process of innovation or ignores components of environment or creativity. Thus, Theory of creativity addressed the weaknesses that incorporating in environment of working or present a comprehensive approach to determine the innovations performance. Theory further explained that innovation mostly occur when any individual have high level if creative and



expertise thinking along with efficiently work in team, develop a social environment. (Yáñez Morales, Pan, & Ali, 2020).

## **2.2 Impact of Leader Member Relationships on New Drug Innovation**

The environment which has relationship of high quality serves as supportive information platform where leaders as well as its subordinates prefer each other for inspiration and support. Generally, it can be believed that the individuals get higher rank or high position as hierarchically, if leaders explained the expertise at higher level related to the problems of social and technical of group. Moreover, it also consider that the leaders have power over all the affairs of organizations in which new drugs innovate through controlling the resources as well as information of strategic notion (Lynd et al., 2017; Mukherjee, Singh, & Žaldokas, 2017; Witell, Snyder, Gustafsson, Fombelle, & Kristensson, 2016). New drug innovation become important aspect for organizations and if leaders develop positive relation with its members or employees of the organizations, innovation of new drugs effectively occur (Yáñez Morales et al., 2020).

**H1: the leader Member Relationship have significant impacts on New Drug Innovation**

## **2.3 Impact of Team Member Relationship on New Drug Innovation**

The relationship of team members can be described as the relationship among the co-workers of the organizations. The relationship among the employees of the firms considers as most significant for the implication of process related to innovation in organizations. Furthermore, it also suggested that the co-workers have large scale of experience, knowledge and understanding related to workplace along with constitute main source of information related to work (Brav, Jiang, Ma, & Tian, 2018; Garcia-Macia, Hsieh, & Klenow, 2019; Sharples et al., 2016). Moreover, it also consider that team members are a set of additional eyes and ears for each other which share the information about the new drug

development through conversation and gossip and ultimately innovate new drug (Yáñez Morales et al., 2020).

**H2: the Team Member Relationship have significant impacts on New Drug Innovation**

## **2.4 Impact of Supervisory Support on New Drug Innovation**

Supervisory support terms as that environment if work which have high level of relations related to helping matters among employees. Such conditions make possible for Supervision of organization to define as well as implement various ideas which gave help in solving the problems in innovation of new drugs at organizational level (Yáñez Morales et al., 2020; Kerdpitak, 2022). So following hypothesis can be made:

**H3: supervisory support have significant impacts on New Drug Innovation**

## **2.5 Impact of Leader Member Relationships on New Drug Innovation and Mediating Role of Help Seeking**

It is explained that the relationship of leaders with its members remain at high level of importance because it make convenient for employees of the organizations to exchange and access the information along with help the leaders to resolve all the issues of the drug innovation. The most influential role perform by leaders in innovating the new ideas about drugs of organizations with the help of providing the adequate resources or given feedbacks (DiMasi, Grabowski, & Hansen, 2016; Melissen, 2016; Walrave, Talmar, Podoyntsyna, Romme, & Verbong, 2018). Furthermore, support from leaders can be observe through the role of help seeking, in which employee coordinate and get support from their leaders. Through help seeking, leaders feel more confident and comfortable during taking initiatives as well as bringing new ideas for the innovation of new drug.

**H4: with mediating role of help seeking the leader Member Relationship have significant impacts on New Drug Innovation**



## 2.6 Impact of Team Member Relationship on New Drug Innovation and Mediating Role of Help Seeking

Social interaction can be term as relationship of leader with members which have less attention from researchers especially at workplace regarding the role of help seeking about the innovation performance of organizations. Past studies gave the effects of help seeking at individual level about creativity of new products but study have lack of reviews about the team member relationship withmediating effects of help seeking (Mueller & Kamdar, 2011; Kerdpitak et al., 2022). It also suggested that higher level of behavior related to help seeking positively link with creativity of individual which related with innovation of new drugs(Eckhardt, Ciuchta, & Carpenter, 2018; Sunder, Sunder, & Zhang, 2017; Visnjic, Wiengarten, & Neely, 2016). According to the theory, creativity within the team member relationship enhance the outcomes in the shape of products as new drugs or become beneficial for organizations a whole (Yáñez Morales et al., 2020). Following hypothesis can be formulated:

**H5: with mediating role of help seeking the Team Member Relationship have significant impacts on New Drug Innovation.**

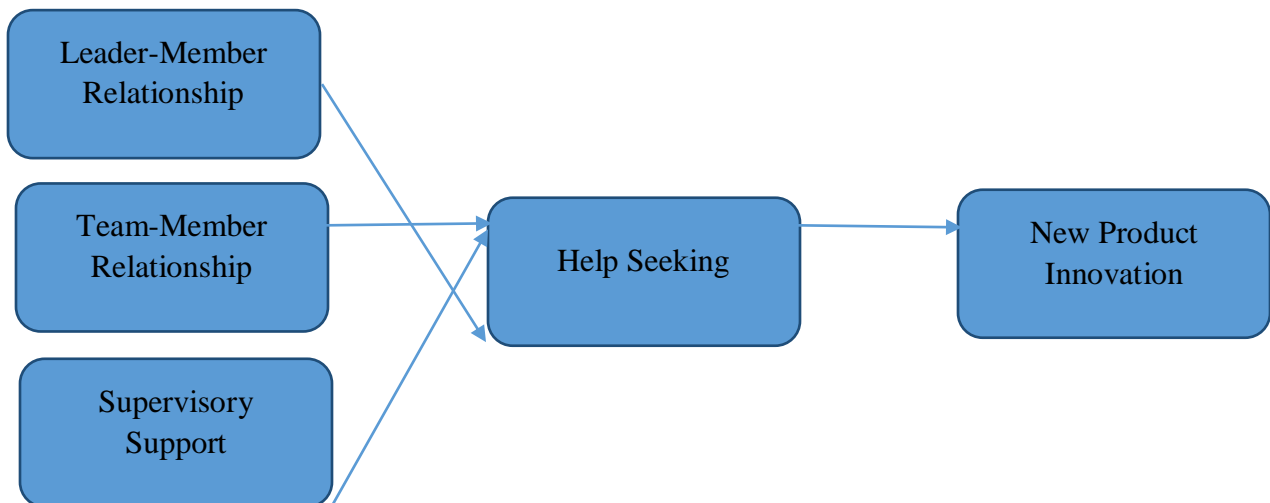
## 2.7 Impact of Supervisory Support on New Drug Innovation and Mediating Role of Help Seeking

Most studies elaborate that the helping other in solving already present problems and innovate new ideas gave creativity as well as productivity of organizations. Such help seeking role gave help to leaders to give benefits at workplace to innovate new ideas (Grodal, Nelson, & Siino, 2015). They remained collaborative and always developed mechanisms in which new ideas not only develop but also share across the organizations(Schot & Steinmueller, 2018; Van Oort, 2017; Wolin, 2016). According to theory of creativity, individuals who gained more knowledge as domain through the collaboration of mutual are become capable to combine various ideas and develop feasible and novel ideas in organizations which as a result bring innovation of new drugs (Yáñez Morales et al., 2020).

**H6: with mediating role of help seeking the Supervisory Support have significant impacts on New Drug Innovation**

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## 2.8 Theoretical Framework



## 3 Methodology

### 3.1 Data collection and sample

In order to empirically investigate the conceptual framework, the study design a



survey for the pharmaceutical companies in Thailand. The purpose is to collect primary data of measures of interest to analyze hypothesized model. The questionnaire design to get responses of respondents comprised two section: demographics of respondents and survey items. The data has been collected from leading pharmaceuticals firms in Thailand, through online survey on Qualtrics. The web links of questionnaire was sent on the email of respondents. Purposive sampling techniques is adapted to collect data, which assumed that sample data is true representative of population data. In total, 500 questionnaire links were sent to employees of pharmaceuticals among which only 324 responses were valid to incorporate in data. Before conducting survey, a pilot based on 15 questionnaires were analyzed to scrutinize the survey items and its reliability.

### 3.2 Measures

The hypothesized model analyzed in the study comprised on five construct: three independents latent variables, one mediator, and one dependent variables. The construct are developed by studying the existing literature. However, the items of construct are revised accordingly the context of pharmaceuticals sector. Latent construct of team member exchange is based on five survey items which is emulated from the study of Kramer, Callister, and Turban (1995). Leader-member exchange construct is developed by adapting the measures of Liden and Maslyn (1998) which is based on four survey items on loyalty, contribution, affect, and professional respect. Supervisory support is the support of top management in innovation process, which is measured by the construct of Kalliath and Beck (2001) based on four items. The mediation variable's construct such as help seeking is emulated from the study of Anderson and Williams (1996) which developed the construct from six survey items each elicit responses of participants on help seeking behavior in firm. Innovation performance is key measure in study

and an output variables which is based on the 5-items each recorded on five point likert scale. The measures is adapted from the study of Liu, Liu, and Liu (2007). The items asked respondents to indicate the extent to which they experience innovation and the application of a new process.

### 3.3 Analytical tools

The study employed two statistical tools such as SPSS and AMOS to analyze the model. The SPSS are used to run frequency distribution test, descriptive statistical, and factor reliability test. AMOS is used to conduct composite factor analysis, structural equation model, and model fitness test. The frequency distribution, descriptive analysis, and reliability factor are all pre-estimation tests. The structural equation model is widely used to estimate the coefficient of latent variables through maximum likelihood techniques. The various model fitness test conduct on AMOS such as GIF, IFI, RMSEA denote the health, strength, and robustness of model.

## 4 Results Interpretation

### 4.1 Demographics

A sample of 446 participants was finalized for the study, out of this 55.6 % were male and 44.4% were identified as females. The significant reason for the disparity of gender is the certainty that more male was identified to be employed in the manufacturing department of pharmaceutical firms. The age of 15.2% of participants was up to 35, this increases the authenticity level of collected data. The significant reason behind the elevation observed in education level and age is the level of workers approached.

### 4.2 Descriptive statistics

Table number 1 is the representation of descriptive statistics of the collected data which gives maximum and minimum values, it also provides some clear features of the study and also provides clear summaries about measures. Descriptive statistics also analyzed the skewness and mean coefficients to check the data and information for the presence of



outliers. The mean values of the study are mainly touching 4 manifesting the agreement of participants with the statements of the study

variables. The values of skewness also fall between -1 and +1 mainly shows the authenticity of the data.

**Table 1: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
LMR	446	1.00	5.00	3.3791	1.16303	-.558	.115
TMR	446	1.00	5.00	3.4227	1.16426	-.669	.115
SSupp	446	1.00	5.00	3.5213	1.19871	-.643	.115
HelpSeek	446	1.00	5.00	3.4287	1.12292	-.647	.115
NDI	446	1.00	5.00	3.6123	1.15728	-.553	.115
Valid N (listwise)	446						

**4.3 Factor loading and convergent validity**

Factor loadings are the significant sections of the results from the analysis of factors (Hassan, Hameed, Basheer, & Ali, 2020; Iqbal & Hameed, 2020), which deliberately play a role as a data reduction process, develop to show the

correlations among evaluated variables. As table 2 manifest that entire items are positive and the loading is greater than 0.8%. Convergent validity has also been shown in table 2.

**Table 2: Factor Loading and convergent Validity**

	1	2	3	4	5	CR	AVE
LMR1				.840		0.940	0.817
LMR2				.818			
LMR3				.822			
LMR4				.814			
TMR1			.776			0.922	0.846
TMR2			.735				
TMR3			.814				
TMR4			.722				
TMR5			.790				
SS1					.787	0.974	0.879
SS2					.772		
SS3					.810		
SS4					.768		
HS1	.758					0.934	0.826
HS2	.786						
HS3	.777						
HS4	.799						
HS5	.789						
HS6	.782						
NDI1		.774				0.935	0.896
NDI2		.830					
NDI3		.826					
NDI4		.801					
NDI5		.821					





#### 4.4 Discriminant validity

Divergent validity or discriminant validity is a type of test that develops that should have no relationship and not have any relationship. Therefore, discriminant validity is presented in table 3.

**Table 3: Discriminant Validity**

	HS	LMR	TMR	SS	NDI
HS	<b>0.914</b>				
LMR	0.693	<b>0.919</b>			
TMR	0.788	0.643	<b>0.924</b>		
SS	0.713	0.604	0.761	<b>0.942</b>	
NDI	0.711	0.618	0.737	0.786	<b>0.942</b>

#### 4.5 Model Fitness

The significant results and findings of confirmatory factor analysis are indicated in table 4. The CMIN value is 2.9, which is less than 3, GFI value is higher than 0.8(0.87), CFI value is higher than 0.9(0.960) and the value of RMSEA is less than 0.8(0.056). The ranges of the threshold are being satisfied; hence the model is fit and clear.

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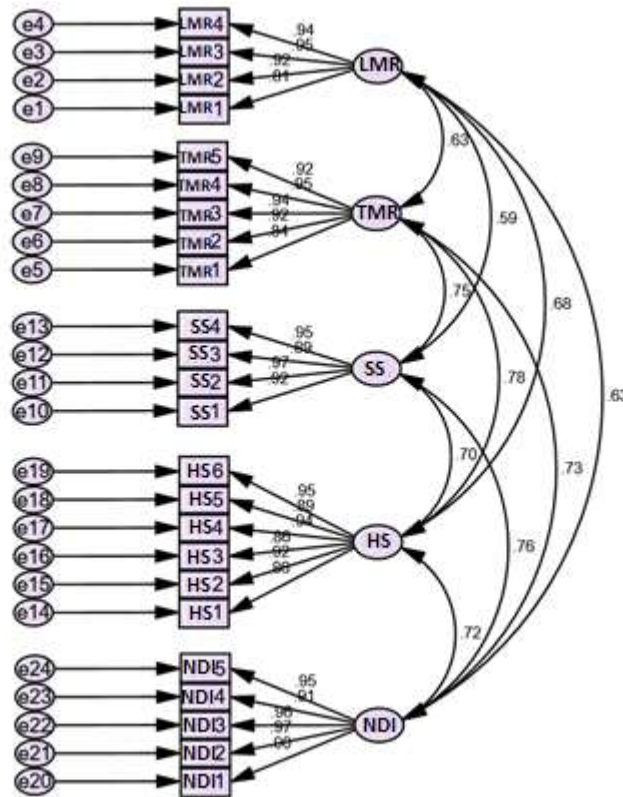
#### Confirmatory Factors Analysis and KMO

CFA Indicators	CMIN/DF	GFI	IFI	CFI	RMSEA	KMO
Threshold Value	≤ 3	≥ 0.80	≥ 0.90	≥ 0.90	≤ 0.08	0.6 – 1.0
Observed Value	2.921	0.873	0.960	0.960	0.056	0.975

**Figure 1: CFA**







#### 4.6 SEM

A unit change in LMR generated a positive effect of 0.14% in NDI, the relationship is positive so the hypothesis is mainly accepted. A unit increase in TMR develops a significant effect of 0.20% in NDI, the relationship is favorable, and hence the hypothesis is

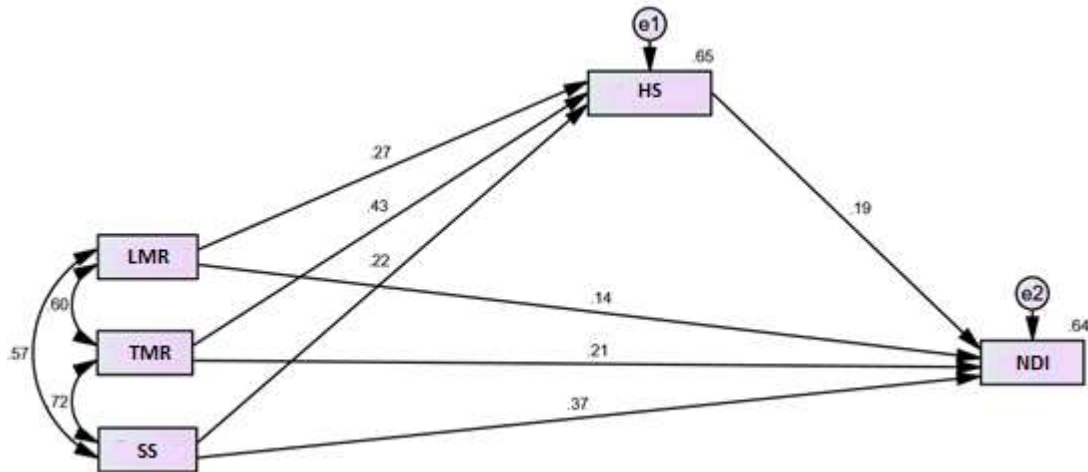
supported. A unitary improves in LMR and HS generated variations of 0.27% and 0.65% in NDI, the relationship is positive and the hypotheses are supported and accepted. All the mediation outcomes are favorable thus entire hypotheses are accepted.

**Table 5: Structural Equation Modeling**

Hypothesis	B-Value	SE	P-Value	Decision
LMR→NDI	.145	.039	.000	Accepted
TMR→NDI	.208	.049	.000	Accepted
SS→NDI	.367	.043	.000	Accepted
LMR→HS→NDI	.052	.019	.010	Accepted
TMR→HS→NDI	.081	.027	.010	Accepted
SS→HS→NDI	.041	.018	.010	Accepted



Figure 2: SEM



## 5 Discussion and Conclusion

### 5.1 Discussion

The trilogy of workplace relationships mainly refers to different relationships among different employees and leaders of the firm such as leader-employee relationship, team-member relationship, and supervisory support to workers of the firm. This research has been developed to evaluate the significance of the trilogy of workplace relations and the mediating role of help-seeking in enhancing the innovation process of new drugs. By developing an effective model, the findings of this research paper indicate that the establishment of an effective relationship between leader-member can prove to be very significant for the innovation of new drugs. The leader-member relationship can develop a system of shared meaning with strong trust and communication that can enhance the innovation process of products (Qu, Janssen, & Shi, 2017). Therefore, the first hypotheses related to the direct impact of the leader-member relationship on the innovation of new drugs have been accepted. The findings of this research study also disclose that team-member relationship can also enhance the innovation process of new drugs. A study by Nirjar, Acharya, and Aniruddha (2018)

explained that team-member relationship develops a positive environment in the firm that proves to be very beneficial for practicing innovation. Thus, the hypotheses related to the impact of the team-member relationship on the innovation of new drugs have been accepted. Hence, this research indicates that positive relationships among all the members of the firm can create an effective climate and environment for practicing innovation, where innovation can be a positive outcome and result.

### 5.2 Conclusion

This study suggests that how helping hands at the firms and the industries are very essential and crucial need in creating a favorable and positive influence for the employees and the managerial level. The technique of this approach of the trilogy in the firm forms a moderated scenario to work better. And this is also concluded that it is a long time approach through which the process of learning and knowledge is always fruitful in the production of the product skillfully.

### 5.3 Implications and Limitations

This study has a very positive influence on the firm and individually also. The firms and the industries following the rules of helping hands



and seeking through this approach can play a major role in the production of the product and finding new ways and means of an increase in the output of the firms and the industries, especially in Thailand.

Though the research gives some significant implications, it also has some restrictions and limitations. First, the survey information in this research was mainly gathered from Thailand's pharmaceutical firm's employees, which may restrict the generalizability of findings of this research. Therefore, it is recommended for future studies that they should conduct data from other sectors to get wider results.

## References

Amabile, T. M. (2012). Componential theory of creativity. *Harvard Business School*, 12(96), 1-10.

Anderson, S. E., & Williams, L. J. (1996). Interpersonal, job, and individual factors related to helping processes at work. *Journal of Applied Psychology*, 81(3), 282.

Brav, A., Jiang, W., Ma, S., & Tian, X. (2018). How does hedge fund activism reshape corporate innovation? *Journal of financial economics*, 130(2), 237-264.

Cavallo, J. V., Zee, K. S., & Higgins, E. T. (2016). Giving the help that is needed: How regulatory mode impacts social support. *Personality and Social Psychology Bulletin*, 42(8), 1111-1128.

DiMasi, J. A., Grabowski, H. G., & Hansen, R. W. (2016). Innovation in the pharmaceutical industry: new estimates of R&D costs. *Journal of health economics*, 47, 20-33.

Eckhardt, J. T., Ciuchta, M. P., & Carpenter, M. (2018). Open innovation, information, and entrepreneurship within platform ecosystems. *Strategic entrepreneurship journal*, 12(3), 369-391.

Garcia-Macia, D., Hsieh, C. T., & Klenow, P. J. (2019). How destructive is innovation? *Econometrica*, 87(5), 1507-1541.

Gerken, M. (2016). How do employees learn at work? *Understanding informal learning from*

*others in different sectors. Maastricht: Datayse Universitaire Pers Maastricht.*

Grodal, S., Nelson, A. J., & Siino, R. M. (2015). Help-seeking and help-giving as an organizational routine: Continual engagement in innovative work. *Academy of Management journal*, 58(1), 136-168.

Hassan, S. G., Hameed, W. U., Basheer, M. F., & Ali, J. (2020). ZAKAT COMPLIANCE INTENTION AMONG SELF-EMPLOYED PEOPLE: EVIDENCE FROM PUNJAB, PAKISTAN. *AL-ADWAH*, 34(2), 80-96.

Iqbal, J., & Hameed, W. U. (2020). Open Innovation Challenges and Coopetition-Based Open-Innovation Empirical Evidence From Malaysia *Innovative Management and Business Practices in Asia* (pp. 144-166): IGI Global.

Kalliath, T. J., & Beck, A. (2001). Is the path to burnout and turnover paved by a lack of supervisory support? A structural equations test. *New Zealand Journal of Psychology*, 30(2), 72.

Kerdpitak C., Jankawekun P., Kongpan Y., Chotithammaporn W., Kumpetch N., Yen W.H. (2022).

Effect of Eco-Innovation Strategies on Enterprises' Sustainable Business for Pharmacies Business in Thailand. *Journal of Positive School Psychology*. 6(3), 4246 – 4256

Kerdpitak C. (2022). Business Performance Model of Herbal Community Enterprise in Thailand.

*Uncertain Supply Chain Management*. 10(2), 345-352.

Kramer, M. W., Callister, R. R., & Turban, D. B. (1995). Information-receiving and information-giving during job transitions. *Western Journal of Communication (includes Communication Reports)*, 59(2), 151-170.

Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of management*, 24(1), 43-72.

Liu, S.-s., Liu, T.-t., & Liu, X.-y. (2007). Study on the relationship between human resource



management system and organizational performance of high-tech company [J]. *Studies in Science of Science*, 4.

Lynd, L. R., Liang, X., Bidy, M. J., Allee, A., Cai, H., Foust, T., . . . Wyman, C. E. (2017). Cellulosic ethanol: status and innovation. *Current opinion in biotechnology*, 45, 202-211.

Melissen, J. (2016). *Innovation in diplomatic practice*: Springer.

Mueller, J. S., & Kamdar, D. (2011). Why seeking help from teammates is a blessing and a curse: A theory of help seeking and individual creativity in team contexts. *Journal of Applied Psychology*, 96(2), 263.

Mukherjee, A., Singh, M., & Žaldokas, A. (2017). Do corporate taxes hinder innovation? *Journal of financial economics*, 124(1), 195-221.

Nirjar, A., Acharya, M., & Aniruddha. (2018). The networks-innovation-firm performance relationship: does it hold good in Indian pharmaceutical industry? *International Journal of Business Innovation and Research*, 16(4), 399-423.

Qu, R., Janssen, O., & Shi, K. (2017). Leader-member exchange and follower creativity: the moderating roles of leader and follower expectations for creativity. *The International Journal of Human Resource Management*, 28(4), 603-626.

Schot, J., & Steinmueller, W. E. (2018). Three frames for innovation policy: R&D, systems of innovation and transformative change. *Research Policy*, 47(9), 1554-1567.

Sharples, M., de Roock, R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., . . . Rienties, B. (2016). *Innovating pedagogy 2016: Open University innovation report 5*: Institute of Educational Technology, The Open University.

Sihvonen, A., & Pajunen, K. (2019). Causal complexity of new product development processes: a mechanism-based approach. *Innovation*, 21(2), 253-273.

Sunder, J., Sunder, S. V., & Zhang, J. (2017). Pilot CEOs and corporate innovation. *Journal of financial economics*, 123(1), 209-224.

van der Rijt, J., Van den Bossche, P., van de Wiel, M. W., De Maeyer, S., Gijselaers, W. H., & Segers, M. S. (2013). Asking for help: A relational perspective on help seeking in the workplace. *Vocations and learning*, 6(2), 259-279.

Van Oort, F. G. (2017). *Urban growth and innovation: Spatially bounded externalities in the Netherlands*: Routledge.

Visnjic, I., Wiengarten, F., & Neely, A. (2016). Only the brave: Product innovation, service business model innovation, and their impact on performance. *Journal of Product Innovation Management*, 33(1), 36-52.

Walrave, B., Talmar, M., Podoyntsyna, K. S., Romme, A. G. L., & Verbong, G. P. (2018). A multi-level perspective on innovation ecosystems for path-breaking innovation. *Technological Forecasting and Social Change*, 136, 103-113.

Witell, L., Snyder, H., Gustafsson, A., Fombelle, P., & Kristensson, P. (2016). Defining service innovation: A review and synthesis. *Journal of Business Research*, 69(8), 2863-2872.

Wolin, S. S. (2016). *Politics and Vision: Continuity and Innovation in Western Political Thought-Expanded Edition*: Princeton University Press.

Yáñez Morales, V. P., Pan, A., & Ali, U. (2020). How helping behaviours at work stimulate innovation in the organization: evidence from a moderated-mediation model. *Innovation*, 22(1), 71-90.