

# THE MODERATING EFFECT OF ENTREPRENEURIAL ORIENTATIONS WITHIN THE RELATIONSHIP OF PSYCHOLOGICAL TRAITS AND ORGANIZATIONAL PERFORMANCE OF PHARMACEUTICAL INDUSTRY IN THAILAND

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## ABSTRACT

*The aim of the study was to examine the association between the psychological traits and organizational performance (OP) through the moderation effect of entrepreneurial orientation (EE) in the pharmaceutical firms of Thailand. The data was collected from the 290 senior managers of pharmaceutical industry of Thailand. The key findings have shown that psychological traits have a significant association with the OP through the dominance and self-efficacy. Thus, this indicates that dimensions of psychological traits are considered a significant predictor for the OP. Moreover, on the other hand, it has shown that EE did not significantly moderates in the relationship of psychological traits dimensions and OP. This might be raised that entrepreneurial were not significantly contributing in the pharmaceutical industry of Thailand and have a conflict of interest. The research limitations had also discussed at the end of the research.*

**Keywords:** Entrepreneurial Orientations, Organization Performance Pharmaceutical Industry, Psychological Traits, Thailand

## INTRODUCTION

Prior qualitative and quantitative research in the psychology as well as management indicated the countless potential in psychological variables on the behalf of calculating entrepreneurial success as well as behavior success (Covin & Lumpkin, 2011; Frese, Gielnik, & Mensmann, 2016; Rauch & Frese, 2007). There is small amount of researches which pay more attention on concurrent influence of multiple psychological circumstances in merger through organizational level characteristics towards prediction financial as well as non-financial attainments (Suksod, Dangsuwan, & Jermstittiparsert, 2019; Chavaha, Lekhawichit, Chienwattanasook, & Jermstittiparsert, 2020). Based at the behavioral concept of an organization, combination of firm's level as well as person level perceptions seems promising at that time when it became to clarifying the entrepreneurial success. In the line with this, that is very

essential for methodological shift: psychology grounded research in the entrepreneurship would carry on to indicate an association among organizational levels and person level perspectives for clarifying entrepreneurial behavior in better way (Hitt, Beamish, Jackson, & Mathieu, 2007; Hmieleski & Corbett, 2008). In addition, a simultaneous concern of multiple variables needs innovative procedures to talk about the corresponding propositions.

The main purpose of this study is to deliver the theoretical source in the direction of combined potential model along with the entrepreneurial orientation moderating effect among the relationship of psychological traits (PT) and organization performance. Main concern of this study is an area of pharmaceutical industry of Thailand. For recognized research gap, an integrated method is taken on; to calculate EO as a moderating variable in place of as an essential variable along with the dominance as well as self-efficacy as the independent variable variables. Additionally, this model also examined empirically more attention for conclude causal associations among these variables, moderately innovative methods in new research as well as entrepreneurship whose distributions has been enhanced (Kraus, Ribeiro-Soriano, & Schüssler, 2018).

The research was conducted on the pharmaceutical industry of Thailand because this sector is considered to be an important variable of the study because this sector had a greater contribution in the social and economic perspective. Therefore, this research finding could provide help to the practitioners of the pharmaceutical industry to increase their organizational performance. The research findings could be generalized on other manufactured also that could increase research generalizability.

## LITERATURE REVIEW

### Organizational Performance

In the research of entrepreneurship, various methods are followed for the purpose of operationalize organizational performance (OP) and in that way entrepreneurial effectiveness. Overhead entire, financial information for example REO, ROI, sales expansion, profitability, and employee's expansion also useful (Affendy, 2015). In place of technology-oriented SMEs, improvement as well as expansion remain significant indicators for the performance of an organization (Filser, 2014). The reason is that, due to complications in achieving knowledge ("e.g. archival data, newly founded venture, micro businesses"), the survey-based methodologies towards determine performance are also executed. Through the high relationship among owner self-reports and growth of organizational volume and data (Chandler, 2005), in this way performance surveys remain an effective manner for achieving significant data. Further type of the performance indicators consists on non-financial determines for example satisfaction of workers/consumers and worldwide success ratings developed through organizational owners/managers. The reason is that EO is only one variables which are used in the present study, as well as association of EO performance mostly pay more attention on financial performance aspects (Covin & Lumpkin, 2011), in this way just tangible indicators remain involved as a performance measures such as sales, profit, employees, market share.

## Psychological Traits

The psychological traits had measured by following two dimensions.

**Dominance:** As said by the Venkataraman and Shane (2000) and (Baron & Tang, 2011), the entrepreneurs should identify, exploit as well as evaluate ideas and opportunities towards be effective. Valuable and innovative ideas remain at the essential of entrepreneurship. On the other hand, entrepreneurs make sure to be have abilities of doing further than basically establishing innovative thoughts (Baron, 2000). In detail, that is very essential for them to identify the valuable and innovative opportunities for goods and services which could be successfully developed into the market place.

A strong purpose is of excessive interest in the SMEs clarifying the effective leadership and implementation of the strategies (Jacobs & McClelland, 1994). Therefore, corresponding trait of necessity for power remain dominance. In this way dominance is described as an aspiration towards provide impact over others, as well as includes the tendency towards behave in confident, assured, and forceful methods (Anderson & Kilduff, 2009). In to the five feature model which also known as a greater five model of individual (McCrae & Costa Jr, 2008), dominance is supposed below extraversion, and reflecting its relational significance. In the substitute “HEXACO model” of the Lee and Mohammed (2014) “dominance is comparable to social self-esteem and social boldness, and both, again, are factors of the extraversion dimension”. For clarify the dominant behavior, relationships remain constantly drawn towards “stereotypically alpha males (the silverback gorilla)”. On the other hand, also mention the two essential sub-dimensions of the dominance in the present study (Palmer, 2015). Automatically, dominance laterally goes with socially concerned in dominance for the purpose maintaining and achieving status. Then, dominant behavior would be exhibited towards achieving objectives. Therefore, in these circumstances, dominant behavior is purpose oriented.

As Palmer (2015) demonstrations, firms need and may more possible reward purpose-oriented frontrunner than the socially forceful alpha. In this way dominance is identified as the highly applicable individual trait for an effective leadership and OP (Hoffman, Woehr, Maldagen-Youngjohn & Lyons, 2011). Dominance is considered as a significant trait for applying impact in collaboration and groups, as well as even have competence-singling influences (Anderson & Kilduff, 2009). Furthermore, in the SMEs, at that place where leaders’ behavior has a powerful influence at the organizational culture and activities, significances of dominance show up even further. According to Cyert & James (1992) “organizations will negotiate as well as devise an environment thus as to uncertainty eliminate. Entrepreneurs mark greater on the extraversion (the great five dimensions bigger to dominance) on the other hand further occupational collections (Brandstätter, 2011; Mieg et al., 2012). Outside this, Neider (1987) mention that notably greater scores of the dominance in place of (female) entrepreneurs compared to the general population (male and female)”. On the other hand, dominance, defined as “the ability to influence others,” in the theory not just associated towards leadership performance, that is also connected with overall OP (Downes, Kristof-Brown, Judge, & Darnold, 2017).

**Self-efficacy:** There are SE is described as the “individual’s judgment of “how well one can execute courses of action required to deal with prospective situations” (Bandura & Cervone,

2000). Supposed that SE reveals the belief in an individual's abilities for mobilizing of the motivation as well as cognitive sources which are very essential for exercise supervise life occasions (Wood & Bandura, 1989). Likewise, expectations of an individual efficiency levels measure only at that time when coping behaviors remain activated/not. Similarly, that is relevant towards quantity of the effort also put into the objective as well as durability about how can maintain this behavior on long-term basis. On the contrary basis if individual have faith in requested capability that is beyond her/himself threshold, basically she/he not performing even at that time when she/he recognized there remain social demand about this activities (Bandura & Cervone, 2000). Prior studies examine the theory of SE indicates a positive associations among SE, behavioral and motivational results in numerous context for example clinical trials (Bandura, 1999; Bandura, Adams, Hardy, & Howells, 1980), as well as organizational settings (Downes et al., 2017).

SE is a central construct within "Bandura's social learning" theory (Bandura, 1986; Wood & Bandura, 1989). On dissimilarity to the other outdated psychological concepts, "Bandura's social learning" concept measures casual associations among environment, behavior and cognition. In this way traditional unidirectional concepts attempt for forecasting human behavior with also taking inner environmental occasions in the consideration. Therefore, social learning concept increase the scope of explorations through utilizing triadic mutual causation for describe human behaviors. The reason is that causation is consisting on the environmental occasions, cognitive and behavior and further individual aspects. A sample of this in what way an individual's behavior could be changed an environment, although similarly this individual's perspective of her/himself can also change the environment.

In view of that, empirical outcomes from the meta-analysis recognize SE in place of as a significant predictor of work-associated performance after that mostly examined variables of personality (Chen, Casper, & Cortina, 2001; Judge, Bono, Ilies, & Gerhardt, 2002) –existence accurate for both task-definite SE and generalized SE. in this way this study monitors the observation of Rauch and Frese (2007); the entrepreneurial SE remain a smaller amount of an individual trait as well as higher a domain particular state which depending on the job features (Eden, 1988), as well as pay more attentions at generalized SE consequently. This concept is maintained through the system of entrepreneurial individual (Obschonka & Stuetzer, 2017). According to this context, SE is defining as a specific appearance of essential major individual tendencies, on the other hand that is a changeable specific time as well as circumstances and associations SE directly towards entrepreneurial action. Therefore, SE is predicated on the comprehensive and sure individual behaviors but changes from previous experience as well as environmental circumstances. The reason is that EPS supports about understanding of the SE as the essential capability of entrepreneurs.

### **Entrepreneurial Orientation**

Singular variable which are deeply associated towards the organizational success is EO (Covin & Lumpkin, 2011; Dess & Lumpkin, 2005). There are EO make sure be integrated as the key structure of entrepreneurial and strategic management literature above of the years as well as grip a main point in entrepreneurship research ground (Ireland, Kuratko, & Covin, 2003;

Venkataraman & Shane, 2000). In addition, EO could be assumed as the cultural theory (Knight, 2003) containing the firms' degree of an adventurous, its proactiveness, as well as its invention (Covin & Slevin, 1989). In this way these significant measurements characterized EO theoretical view (George & Marino, 2011), while other research includes further measurements (Lumpkin & Dess, 1996) on the other hand single dimensions also excludes (Russell Merz & Sauber, 1995). There are three contrary models about EO remain talk over in this study (Vij & Bedi, 2012). Firstly, in a create model, the EO examined in place of a dependent variable. At this time pay more attention at recognizing its backgrounds (Holt, Rutherford, & Clohessy, 2007).

Second, there are strategic model of EO aligns the EO level through the contrary approaches (Covin & Slevin, 1988). Third, performance model also associates EO with firm's success under paying more attention on moderating as well as mediating variables which associated towards an external or firm's atmosphere (Covin & Slevin, 1988). Furthermore, in this way, multiple scientific works remain verified the significances of EO on the behalf of ES. EO have a positive and significant influences at the rate of sales growth (Green, Covin, & Slevin, 2008) as well as is capable for predicting invention (Bouncken, Plüschke, Pesch, & Kraus, 2016). Furthermore, Rauch, Wiklund, Lumpkin, and Frese (2009) indicate the meta-analysis about an association among EO and organizational performance. At this time, EO in overall as well as its major three dimensions remain associated by overall ES. Stimulatingly, there is EO equally have abilities to predicting the financial performance in place of as it predicting of non-financial performance. Cohen (1988) defines these associations as a moderate. In this way EO seems to deliver a great influence at organizational performance on the behalf of micro industries. Moreover, while service organizations deliver a greater EO than the manufacturing organizations, an association between organization's EO as well as its progressive objectives does not fluctuate between two kinds of organizations (Rigtering, Kraus, Eggers, & Jensen, 2014).

The EO considered as the organizational level strategic method (Covin & Lumpkin, 2011). On the other hand, those characteristics also establishing EO at the organizational level (such as: adventurous, proactiveness, and innovation) deeply look a lot like (identically categorized) the psychological variables defined an individual level behavior. According to this, many researcher have talk about the opportunity of spread out the appliances of EO towards an individual (Brettel et al., 2015; Covin & Lumpkin, 2011). Therefore, in psychology, adventurous, proactiveness, and innovation are widely researched. Such as, significances of entrepreneurs' innovations for ES is verified in multiple empirical studies (Ahlin, Drnovšek, & Hisrich, 2014; Krause, 2013).

Atkinson (1957) reveals "as early as in 1957" about an existence of the deep association among risk-taking as well as attainment motivation. Consequently, verified results for the risk-taking in place of an individual trait towards entrepreneurs also. According to Rauch and Frese (2007) investigating the associations among individual trait as well as outcomes of entrepreneurial which discover the features of risk-taking, innovation, and proactiveness to be related with organizational success. Fascinatingly, in entrepreneurial field, execution of the present literature examine only retrieves the limited papers examining in EO perspective of individuals (Covin et al., 2020; Gopinath & Mitra, 2017). Most frequently utilizing scale for

determine EO is grounded on the Miller (2011) as well as is improved by the (Covin & Slevin, 1989). In addition, more defined in the process section, put on the EO scale laterally by psychological variables at an individual level permits an extent of connection of EO using individual behaviors to be measured. This study also extends beyond a simple reproduction of the EO's potential on the behalf of predicting ES; it provides a deep understanding about EO according to its potential extension towards an individual level.

### Hypothesis and Research Framework

*H1: The psychological traits had a significant relation with the organization performance of Thailand pharmaceutical industry.*

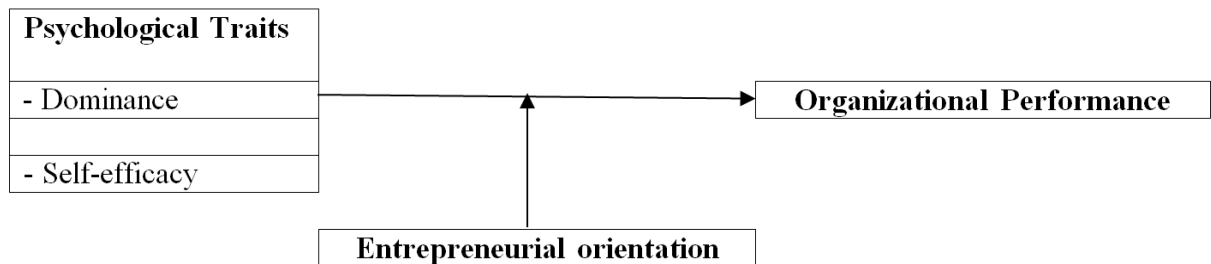
*H1a: The Dominance had a significant relation with the organization performance of Thailand pharmaceutical industry.*

*H1b: The self-efficacy had a significant relation with the organization performance of Thailand pharmaceutical industry.*

*H2: Entrepreneurial orientation had a significant moderating effect among the relationship of psychological traits and organization performance.*

*H2a: Entrepreneurial orientation had a significant moderating effect among the relationship of Dominance and organization performance of pharmaceutical industry of Thailand.*

*H2b: Entrepreneurial orientation had a significant moderating effect among the relationship of self-efficacy and organization performance of pharmaceutical industry of Thailand.*



**Figure 1**  
**RESEARCH FRAMEWORK**

### RESEARCH METHODOLOGY

The correlational and cross sectional in nature and this research was use quantitative research design for analyzing the relationship among the variables. Quantitative method is suitable for the correlational study (Saunders, Lewis, & Thornhill, 2009). For providing the data, this technique is considered to be a practical that is used to establish a basis for the wider generalization (Zikmund, 2003). The survey was conducted from the December 2018 to March 2019. The questionnaires were distributed among the 422 senior managers of the pharmaceutical industry of Thailand. Out of these 297 questionnaires were collected from the respondents. From the 297 questionnaires, 290 questionnaires were able for further analysis because seven questionnaires were not properly from the respondents. So, there was 69 percent response rate was from the total sample size. The questionnaire was comprising of demographic and 5-point

Likert-type scale (1 = strongly disagree to 5 = strongly agree) to collect the responses from the respondents to each mode of the hypotheses. The data was analyzed by using a Smart PLS 3.0. The Partial Least Square-(PLS) Structural Equation Modeling (SEM) was applied for that analysis. The measurement and structural model were applied for this purpose.

## RESEARCH RESULTS

### Convergent Validity

It is needed to examine the construct reliability, individual reliability, convergent and discriminant reliability of all the items which are measured. For this purpose, the loading of Cronbach's alpha value of each construct should be at least 0.70 or greater. Furthermore, for the average variance (AVE) extracted value could be minimum 0.50 or higher that explains that the construct more than half variance of the indicators (Hair, Hult, Ringle, & Sarstedt, 2014). Convergent validity has been measured through the examined the composite reliability (CR) and AVE (Hair *et al.*, 2014). The value of the CR could be considered a satisfactory on point 0.70 (Hair, Hollingsworth, Randolph, & Chong, 2017; Hair *et al.*, 2014; Yaseen, Dajani, & Hasan, 2016). In this regard, the table 1 predicted the value of reliability and convergent validity. The data demonstrates that all the measures are vigorous with respect to internal consistency. Moreover, the value of Cronbach's alpha, factor loadings, all are greater than 0.7.

<b>Construct</b>	<b>Items</b>	<b>Loadings</b>	<b>Alpha</b>	<b>CR</b>	<b>AVE</b>
Innovativeness	RIT1	0.786	0.866	0.898	0.561
	RIT2	0.844			
	RIT3	0.774			
	RIT4	0.746			
Proactiveness	PROA1	0.824	0.867	0.898	0.559
	PROA2	0.754			
	PROA3	0.633			
	PROA4	0.696			
Innovativeness	INNO1	0.739	0.778	0.849	0.531
	INNO2	0.745			
	INNO3	0.579			
	INNO4	0.723			

Self-efficacy	SEE1	0.805	0.938	0.95	0.73
	SEE2	0.89			
Dominance	DOM1	0.643	0.801	0.883	0.716
	DOM2	0.783			
	DOM3	0.891			
Organizational performance	OP1	0.579	0.92	0.934	0.588
	OP2	0.843			
	OP3	0.649			
	OP4	0.812			

### Discriminant Validity

The discriminant has shown that there is a strong relationship of reflective construct with its indicators in the path model (Hair Jr, 2017). At first, in table 4.2 and 4.3 predicted the Fornell-Larcker criterion value which ensured that AVE squared root (signified through the values in the diagonal calculated) should always be greater from each of the construct correlations (signified through the values in off-diagonal) (Hair, Hult *et al.*, 2014). At second, for the Heterotrait-Monotrait ratio of correlations (HTMT) of criterion results, if the value of HTMT is below than 0.90, then the discriminant validity is recognized among the reflective constructs (Hair Jr *et al.*, 2017). The value of Fornell-Larcker and HTMT has been shown in Table 2 and Table 3 respectively.

	RIT	PROA	INNO	SEE	DOM	OP
RIT	0.855					
PROA	0.408	0.766				
INNO	0.769	0.352	0.846			
SEE	0.078	0.105	0.036	0.689		
DOM	0.353	0.171	0.295	0.306	0.745	
OP	0.188	0.231	0.185	0.414	0.45	0.744

	RIT	PROA	INNO	SEE	DOM	OP	RIT
RIT							
PROA	0.042						

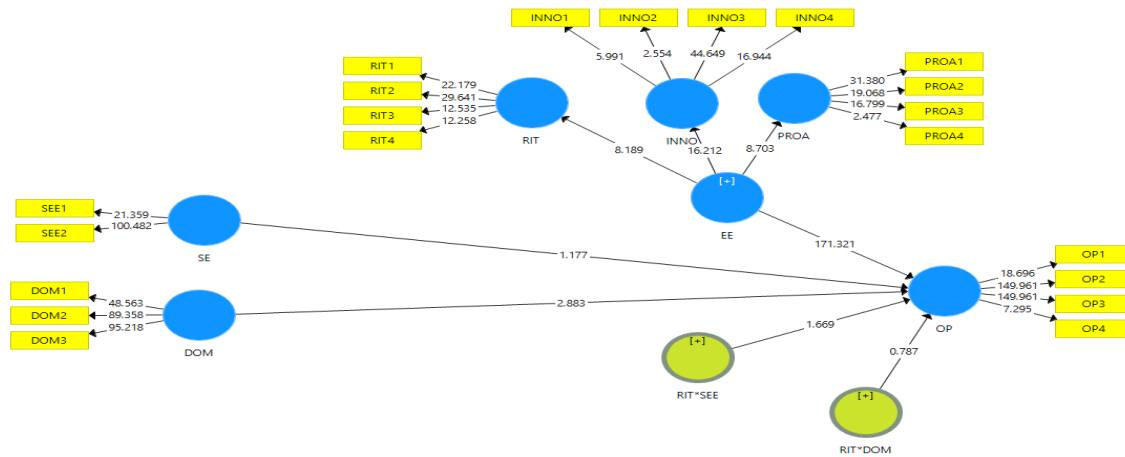


INNO	0.44	0.437					
SEE	0.012	0.801	0.406				
DOM	0.106	0.096	0.114	0.122			
OP	0.392	0.391	0.18	0.356	0.353		
S&P	0.21	0.198	0.245	0.218	0.494	0.502	

## The Structural Model

The analysis of the current research has been analyzed through Structural Equation Modeling (SEM) by using the Smart PLS 3.2.8 tool that provide help to assess the psychometric properties of measurement model. Furthermore, it also assesses parameters of the structural model. In the same vein, it also assesses the component-based approach for the structural equation model through using the bootstrapping method. Moreover, there are two essential paths for the structural model in the Smart PLS, (Inner) measurement model and (outer) structural model (Henseler, Ringle, & Sarstedt, 2015). In the table 4, The SEM analysis has shown that dominance (DOM) has statistically positive and significant association with the Organizational performance (OP). On the other hand, the dimensions of self-efficacy (SEE) also shown that there is a significant association with OP. It means that higher psychological traits implemented by the Pharmaceutical industry in Thailand, the better its OP. Thus, this indicates that there is potentially significant effect of psychological traits dimensions at 95% level of confidence on the OP. In this regards, proposed hypothesis and it has shown that all the path coefficients ( $\beta$ ) are statistically significant ( $p < 0.05$ ). In other context, it has clearly shown in Table 4 that entrepreneurial orientation (EE) did not significantly moderate in the relationship of psychological traits dimensions (DOM, SEE) and BP. Hence, this indicates that EE did not consider a significant moderator in the relationship of psychological traits and OP. This might be raised that in the pharmaceutical industry entrepreneurial orientation have a conflict of interest and has conflict with the other entrepreneurial, which characterize their principal.

	<b>Beta</b>	<b>t Statistics</b>	<b>P Values</b>	<b>Results</b>
DOM-> OP	0.24	5.203	0	Supported
SEE-> OP	0.387	8.659	0	Supported
EE*DOM-> OP	0.073	1.593	0.112	Not Supported
SEE-> OP	0.162	1.551	0.012	Not Supported



**Figure 2**  
**STRUCTURAL MODEL**

**DISCUSSION AND CONCLUSION**

The aim of the study was to examine the association between the structural capital (SC) and organizational performance (OP) through the moderation effect of entrepreneurial orientation (EE) in the pharmaceutical firms of Thailand. The key findings have shown that psychological traits have a significant association with the OP through the dominance and self-efficacy. Thus, this indicates that dimensions of psychological traits are considered a significant predictor for the OP. Moreover, on the other hand, it has shown that EE did not significantly moderates in the relationship of psychological traits dimensions and OP. This might be raised that entrepreneurial were not significantly contributing in the pharmaceutical industry of Thailand and have a conflict of interest.

With the significant of the research, current study has some limitations such as, the study was limited on the pharmaceutical firms, so the findings could be generalizing on the other industries which are small or non-listed because the hierarchal structure is different in every organization. So, the future research could be done on other sectors. At second, respondents were included only managers so, in future other respondents such as other employees could be included as a respondent. At third, research could be generalizing in the developed country because is considered a developing country. At forth, entrepreneurial orientations were based on three dimensions as a moderating variable, so in future it could be included other dimensions of BC in their relationship to find the clearer results. At fifth, a comparative study could be done among the industries because this study limited on the single industry. On the other hand, the findings of the current research might provide help to both the Practitioners and academicians. This study extends the viewpoint of prior research about the association of SC and BP with the empirical evidence. In this regards, the findings of current research could provide help as a for the more research about their relationship.

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