

# The Moderating Effect of Locus of Control on the Relationship between Perceived Poor Business Performance and Superstitious Behaviors of Thai Entrepreneurs

## อิทธิพลของความเชื่ออำนาจภายในและภายนอกที่มีผลต่อความสัมพันธ์ ระหว่างผลการดำเนินธุรกิจที่มีปัญหาและพฤติกรรมด้านเหนือธรรมชาติ ของผู้ประกอบการไทย

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### Abstract

This research aims to explore the contributions of entrepreneurs' locus of control and the influence of perceived poor business performance prior to business closedown, to examine whether these personal characteristics and situational characteristics might associate with the degree of superstitious behaviors of Thai entrepreneurs. A sample of 120 entrepreneurs who recently closed down their businesses in less than one month was obtained using the snowball sampling technique. The results from partial least squares structure equation modeling shows that the degree of superstitious behaviors of Thai entrepreneurs tends to relate significantly to their level of external and internal locus of control. Moreover, the moderating effect analysis reveals that whether perceived poor business performance positively associates with superstitious behaviors tends to depend strongly on the locus of control of entrepreneurs.

**Keywords:** *Locus of Control, Entrepreneurship, Self-Efficacy, Small Business, Superstitious Behaviors*

### บทคัดย่อ

งานวิจัยนี้ศึกษาเกี่ยวกับอิทธิพลของความเชื่ออำนาจภายในและภายนอก  
ตนและผลการดำเนินธุรกิจที่มีปัญหาก่อนปิดกิจการ รวมถึงศึกษาความสัมพันธ์  
ระหว่างลักษณะส่วนบุคคลและลักษณะทางสถานการณ์กับระดับของพฤติกรรม

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ด้านเหนือธรรมชาติของผู้ประกอบการไทย ผู้วิจัยเก็บรวบรวมข้อมูลโดยใช้แบบสอบถามจากผู้ประกอบการจำนวน 120 ตัวอย่างที่เพิ่งเปิดกิจการมาเป็นเวลาไม่เกินหนึ่งเดือนโดยผ่านการเลือกตัวอย่างแบบลูกโซ่ ผลการวิเคราะห์ข้อมูลโดยใช้สมการโครงสร้างแบบกำลังสองน้อยที่สุดบางส่วนพบว่า สำหรับกลุ่มตัวอย่างที่ความเชื่ออำนาจนอกตนสูงนั้น ระดับของพฤติกรรมด้านเหนือธรรมชาติของผู้ประกอบการไทยมีแนวโน้มที่จะสัมพันธ์อย่างมีนัยสำคัญกับระดับของความเชื่ออำนาจภายในและภายนอกตน ยิ่งไปกว่านั้น แนวโน้มเกี่ยวกับการวิเคราะห์ผลของตัวแปรกำกับพบว่า ยิ่งผู้ประกอบการประสบปัญหาทางธุรกิจรุนแรงมากเท่าไร พฤติกรรมด้านเหนือธรรมชาติยิ่งมีมากขึ้น แต่สำหรับผู้ประกอบการที่ความเชื่ออำนาจในตนสูงนั้น ยิ่งพวกเขาประสบปัญหาทางธุรกิจรุนแรงมากเท่าไร แนวโน้มเกี่ยวกับพฤติกรรมด้านเหนือธรรมชาติจะยิ่งน้อยลง

**คำสำคัญ:** ความเชื่ออำนาจ ผู้ประกอบการ การรับรู้ความสามารถของตนเอง ธุรกิจขนาดย่อม ความเชื่อเรื่องเหนือธรรมชาติ

## Introduction

No matter how far modern sciences and technology have evolved, it is evident that beliefs in superstitions are still ingrained in many cultures worldwide (Carlson, Mowen, & Fang, 2009). Vyse (2000) defined superstition generally as “the belief in supernatural causality that one event causes another without any natural process linking the two events.” Although the effects of superstitions on expected outcomes are far beyond scientific explanation and seem to be questionable for some people (Langer, 1975; Shermer, 2002), documented research has shown that people in different professions widely adopt superstitious behaviors, such as athletes (Bleak & Frederick, 1998; Schippers & Van Lange, 2006; Womack, 1992), gamblers (Joukhador, Blaszczynski, & Maccallum, 2004), stock traders (Aredy, 2007; Charoensukmongkol, 2019), internal auditing staffs (Charoensukmongkol, 2017) and even corporate executives (Anterasian, Graham, & Money, 1996). However, although previous research has investigated the motivations of people to embrace superstitions in various professions, little is known about superstitious behaviors in business entrepreneurs (Anterasian et al., 1996). Theoretically, positive

illusion (Taylor & Armor, 1996) and illusion of control (Langer, 1975) are two mainstream theories that are adopted in this research to explain superstitious behaviors. The theories suggested that superstitious behaviors tend to be particularly relevant for individuals who are facing with stressful and uncertain situations (Langer, 1975; Taylor & Armor, 1996). Business entrepreneurs, especially those who recently faced with business problems, seem to fit this theoretical perspective because they had to endure a significant loss from their investment. Generally, entrepreneur is the occupation which is highly involved with risk taking (Cui, Sun, Xiao, & Zhao, 2016). Still, whether this situation could influence superstitious behaviors of entrepreneurs is still unproven with empirical evidence. The objective of this study is to test the theories to broaden the knowledge about a situational factor that might explain superstitious behaviors adoption in business entrepreneurs.

Although people have many reasons to engage in superstitious behaviors, major scholars in this field have suggested that individual differences and situational factors are among the main reasons that explain this behavior (Langer, 1975; Langer & Roth, 1975). In particular, people

who are faced with unfavorable life events but tend to lack the self-confidence to cope with the problem tend to be those who are more susceptible to depend on superstition (Bleak & Frederick, 1998; Schippers & Van Lange, 2006). Given the role of individual differences and the influence of situational factors on the propensity to adopt superstitious behaviors, the present study focuses on the locus of control as the personal factor and the influence of perceived poor business performance prior to the time of business closedown as the situational factor that might associate with superstitious behaviors of Thai entrepreneurs. Because Thailand is a country where superstitions are deeply ingrained in the traditions of people (Gallagher, 2014; Satrusayang, 2015), it serves as an appropriate context for research on superstitious behaviors. Because superstitious beliefs tend to vary across cultures (Kramer & Block, 2007), research about superstitious behaviors in Thailand will provide extra evidence about the aspects of superstitious behaviors of people in this culture which are different from superstitious behaviors in other countries (Areddy, 2007; Bleak & Frederick, 1998; Joukhador et al., 2004). In particular, there are two research questions that the study aims to address. First, the study will explore the degree of superstitious behaviors that might correlate with the perception of poor business performance that Thai entrepreneurs encounter. Second, the author will also investigate whether the correlation between these two factors are contingent on the level of internal locus of control and external locus of control that entrepreneurs exhibit. The author expects results from this study to provide valuable insight into some underlying factors that might explain the degree of superstitious behaviors of Thai entrepreneurs during the time of business

difficulty. The results from this research will also provide a practical contribution regarding some coping methods that Thai entrepreneurs adopt when they experience stressful business conditions.

## **Literature Review and Hypotheses**

### **Superstitious behaviors of Thai entrepreneurs**

The term “superstitious behaviors” was defined by Schippers and Van Lange (2006) as “unusual, repetitive, rigid behavior that is perceived to have a positive effect by the actor, whereas in reality there is no causal link between the behavior and the outcome of an event.” Several scholars have argued that the degree of superstitious behaviors, even within a particular culture, tends to vary across individuals (Kramer & Block, 2007). Although demographic factors, such as age and gender, are common characteristics that explain the level of superstitious behaviors (Preece & Baxter, 2000; Wiseman & Watt, 2004), one personality trait that strongly determines why some individuals tend to be more or less superstitious than others is locus of control (Schippers & Van Lange, 2006). Locus of control can be divided into two aspects: external locus of control and internal locus of control (Rotter, 1966). The difference between the two depends on whether people attribute the cause of success to external or internal factors (Babalola & Bruning, 2015). People with high external locus of control normally believe that success and failure in their lives come from situations and environments that are beyond their control, such as fate or luck. On the other hand, people with high internal locus of control believe that their own actions strongly determine success and failure in their lives.

Positive illusion (Taylor & Armor, 1996) and illusion of control (Langer, 1975) are two related theoretical frameworks that explain why locus of control influence superstitious behaviors. Generally, these two theories emphasize the importance of perceptions of control over life normally required by human nature. Firstly, the theory of positive illusion proposed by Taylor and Armor (1996) posits that when individuals face with stressful situation, they often respond with mildly distorted positive perceptions of themselves, an exaggerated sense of personal control, and overly optimistic expectation about the future. Because negative events are perceived as a threat to positive assessments of perception of personal control, individuals tend to take active efforts to restore it by forming a belief that they have control over at least some aspects of that event (Taylor & Armor, 1996). This perspective is consistent with Langer (1975)'s "illusion of control" which is regarded as one type of the positive illusion. Langer (1975) suggested that individuals tend to believe that they can control or at least influence outcomes which they clearly cannot. In this regard, individuals tend to behave as if they could exercise control in a chance situation where the exercise of skill or radical decision making is required (Langer, 1975). Basically, both positive elusion and control elusion can serve as an adaptive coping strategy that individuals use for helping them overcome perceived uncertainty in their surroundings and to facilitate psychological adjustment (Taylor & Armor, 1996; Wiseman & Watt, 2004). Thus, these two

theories imply that the main reason individuals embrace superstitious behaviors is a perception that individuals have no control over a situation they encounter (Bleak & Frederick, 1998). In this regard, individuals who lack confidence that they have sufficient capabilities required to be successful in their life are more likely to depend on superstitions as a means to help them overcome their perceived weaknesses.

Because entrepreneurs with high external locus of control tend to believe that external forces that are beyond their control heavily drive achievements in their lives, they are more likely to be more superstitious than entrepreneurs with low external locus of control. Although they achieve the expected outcome, they tend to believe that it was due to superstitious power rather than their own competencies. Conversely, entrepreneurs who exhibit high internal locus of control are less likely to embrace superstitious behaviors than entrepreneurs with low internal locus of control because these entrepreneurs strongly believe in their own competencies to bring success to their lives (Steed & Symes, 2009); thus, there is no need for them to rely on superstitions for help. In fact, the contribution of locus of control on the degree of superstitious behaviors is also supported by previous studies that found a strong association between them in several contexts (Bleak & Frederick, 1998; Dag, 1999; Schippers & Van Lange, 2006). Therefore, to be consistent with previous literature, the following hypotheses are presented:

H1: There is a positive relationship between external locus of control and superstitious behaviors of Thai entrepreneurs.

H2: There is a negative relationship between internal locus of control and superstitious behaviors of Thai entrepreneurs.

In addition to locus of control, the tendency of Thai entrepreneurs to adopt superstitious behaviors can be associated with the unfavorable situations that they experience (Skinner, 1948). Because scholars have proposed that individuals tend to be more prone to embrace superstition when they encounter stressful life events (Bleak & Frederick, 1998; Keinan, 2002; Schippers & Van Lange, 2006), this research proposes that perceived poor business performance that entrepreneurs experienced prior to business closedown can be a major factor that associates positively with their superstitious behaviors. The entrepreneurs' perception that the businesses they extensively invested into cannot be continued is considered a stressful life situation for them. Thus, entrepreneurs who are facing this dilemma would be more prone to depend heavily on superstitions in hopes that they will help provide the solutions to business problems. However, instead of predicting the positive association between these two factors, the author proposes whether perceived poor business performance relates to superstitious behaviors of entrepreneurs will be contingent on the level of locus of control that entrepreneurs exhibit.

In particular, the positive association between perceived poor business performance and superstitious behaviors will strongly present in entrepreneurs who exhibit higher external locus of control. Because individuals who have high external locus of control normally believe that their lives are strongly destined by external events that are beyond their control, the perception that these entrepreneurs have about business success and failure tends to be attributed strongly to external forces. For example, when they perceive that their

business performs well, they may think that the help of supernatural beings significantly drives the success. In the same manner, the more they feel desperate about the poor business condition, the more they will cling on to superstitions in hopes that a supernatural power will somehow help them overcome difficulties. On the other hand, the positive link between perceived poor business performance and superstitious behaviors might be less likely for entrepreneurs with low external locus of control, particularly because they tend not to believe in the influence of external forces that can determine their business performance.

Similar to external locus of control, the study also proposes that the positive link between perceived poor business performance and superstitious behaviors will strongly present only in entrepreneurs who exhibit lower internal locus of control, but not for entrepreneurs who exhibit higher internal locus of control. Because individuals who have high internal locus of control tend to have strong beliefs that success and failure in their lives are largely determined by their own actions and circumstances that are under their control (Hadsell, 2010), entrepreneurs with this characteristic are less likely to attribute business success or failure to external forces, such as superstitions. When faced with business difficulties, they tend to believe in their competencies to deal with problems rather than relying on superstitions for help. Thus, perceived poor business performance for entrepreneurs with high internal locus of control is not expected to have a positive link to superstitious behaviors. On the other hand, individuals who lack internal locus of control tend to have lower confidence in their competency to deal with difficulties that

happen in their lives (Taylor, 2010). Accordingly, entrepreneurs with this characteristic are more likely to rely on superstitions to help them gain more confidence when faced with business dilemmas.

Given the role of external locus of control and internal locus of control that might moderate the link between perceived poor business performance and superstitious behaviors, the following hypotheses are presented:

H3: The positive relationship between perceived poor business performance and superstitious behaviors of Thai entrepreneurs will present only in entrepreneurs with high external locus of control.

H4: The positive relationship between perceived poor business performance and superstitious behaviors of Thai entrepreneurs will present only in entrepreneurs with low internal locus of control.

## Methods

### Sample and data collection

A sample of entrepreneurs who had recent experience with business closedown was obtained using the snowball sampling technique. This nonprobability sampling technique was implemented due to difficulty with identifying the companies that were recently out of business. In order to gain access to the sample with this characteristic, the graduate students in the entrepreneurship management major at the public university in Thailand whose friends or relatives recently closed down their businesses in less than one month were asked to distribute the surveys to those people. The initial respondents were also asked to recommend other people they knew who were in the same situation to participate in the survey. Graduate students who had personal networks with a group of small businesses entrepreneurs in major marketplaces in the Bangkok area helped facilitate this process of data collection. The data were collected using a self-administered questionnaire survey. The questionnaires, along with cover letters explaining the purpose of the study, were distributed and collected in person with the help of graduate students.

The total time spent on data collection was about three months. Overall, a total of 120 usable surveys were obtained for data analysis. This sample size met the minimum sample size requirement for the structure equation modeling estimation suggested by Cohen (1988). Given that the proposed model had 4 latent variables (perceived poor business performance, superstitious behaviors, external locus of control, and internal locus of control) which were measured by the total of 20 indicators, the minimum sample size for the model structure using Cohen (1988)'s suggested parameters (anticipated effect size=.1; desired statistical power level=.8; probability level=.5) was 100.

Table 1 presents the personal characteristics and firm characteristics of the sample. In particular, the majority of the respondents were female, the average age was 37 years old, and most respondents held a bachelor's degree. For firm characteristics, most of their firms were microenterprises in the retail industry, had about three full-time employees on average, and had operated for about four years on average before the time of company closedown.

### Measures

Perceived poor business performance was measured by asking the respondents to evaluate the performance of their firms prior to the time of business closedown. The performance was captured in five aspects: (1) overall financial

performance, (2) sales volume, (3) sales growth, (3) profitability, (4) customer retention, and (5) perceived chance of business survival. These aspects were rated using a seven-point Likert scale ranging from 1: (very satisfactory) to 7: (very unsatisfactory).

**Table 1** Descriptive Statistics of the Entrepreneur

Variables	Descriptive statistics
Age of entrepreneurs (years)	Mean: 37.09; S.D: 7.88
Gender	Male: 36 (30.00%) Female: 84 (70.00%)
Education	Primary school: 1 (0.80%) Secondary school: 11 (9.20%) Vocational certificate: 2 (1.70%) High vocational certificate: 3 (2.50%) Diploma: 5 (4.20%) Bachelor's degree: 83 (69.20%) Master's degree: 15 (12.50%)
Type of business	Retail: 101 (84.20%) Service: 19 (13.80%)

Superstitious behaviors in Thai culture was measured by the scale developed by Charoensukmongkol (2017) which consisted of five superstitious practices commonly adopted in Thailand. Respondents were asked to rate the degree of importance they assigned to each aspect of superstitious practices in daily life: (1) believing in horoscopes and fortune telling, (2) engaging in superstitious rituals to overcome (enhance) bad (good) karma, (3) praying to spiritual and supernatural beings to ask for success and/or luck, (4) choosing to perform important tasks during auspicious days and times, and (5) collecting and/or carrying amulets.

These aspects were rated using a seven-point Likert scale ranging from 1: (not important) to 7: (very important).

External locus of control and internal locus of control were measured using a chance control scale developed by Levenson (1973). The scale for external locus of control included five items. These statements items were rated using a seven-point Likert scale ranging from 1: (strongly disagree) to 7: (strongly agree). Sample items for external locus of control are: "When I get what I want, it's usually because I'm lucky" and "It's not always wise for me to plan too far ahead because many things turn out to



be a matter of good or bad fortune.” Sample items for internal locus of control are “My life is determined by my own actions” and “I can pretty much determine what will happen in my life.”

Finally, demographic characteristics that might associate with the degree of superstitious behaviors were incorporated in the analysis as control variables. These characteristics included age, gender, and educational level of the respondents. Age was measured in years. Gender was measured as a dummy variable, where male was coded as 1 and female was coded as 0. Education was measured on the ordinal scale.

### **Statistical analysis**

Partial least squares (PLS) structure equation modeling was used in this research as a statistical technique to test the hypotheses. PLS is a technique that allows multiple hypotheses to be assessed simultaneously. It also allows the multiple-item construct to be measured in the form of the reflective latent variable. Moreover, PLS offers more advantages over covariance-based structure equation modeling techniques because it does not require data to be normally distributed (Kline, 2005) and it allows a smaller sample size for data analysis (Chin, 1998). In particular, the sample size of 120 respondents, which is relatively small, makes PLS more reliable for model estimation in this research. PLS analysis was performed using WarpPLS version 5.0.

## **Results**

### **Construct reliability and validity**

Before performing PLS estimation, it is important to confirm that the level of reliability and validity of all reflective latent variables are sufficient. All sets of statement items that belonged to perceived poor business performance, superstitious behaviors, internal locus of control, and external locus of control were used to construct the reflective latent variable for their underlying concept. First, construct reliability was assessed using Cronbach alpha ( $\alpha$ ) coefficients and composite reliability coefficients. All values exceeded the widely suggested value of .7, indicating the level of reliability of all constructs was satisfactory (Fornell & Larcker, 1981). Second, convergent validity was assessed to make sure that all question items that aimed to measure their underlying construct truly belonged to their construct. Convergent validity was estimated using factor loadings. The results indicated that all loadings exceeded .5, which was the value recommended by Hair, Black, Babin, and Anderson (2009) as a minimum threshold for good convergent validity. Third, discriminant validity was evaluated to make sure that question items that measured different constructs did not overlap with one another. Discriminant validity was assessed using average variance extracted (AVE). The result showed that the square root of the AVE of each construct was greater than other correlations involving that construct, thereby supporting that discriminant validity was satisfactory (Fornell & Larcker, 1981). Table 2 reports the AVE and correlation matrix.



**Table 2** Correlation among Variables and Square Root of Average Variance Extracted

Variables	Composite reliability	Cronbach's alpha	PPBP	SB	ILC	ELC	FM	EDU	AGE
	coefficients	coefficients							
PPBP	.933	.909	(.859)	-.079	-.048	-.039	.030	-.025	.106
SB	.905	.874		(.774)	-.208*	.464**	.159	-.239**	.186*
ILC	.843	.763			(.728)	-.100	-.105	.195*	.055
ELC	.854	.787				(.735)	.046	-.230*	.029
FM	-	-					(1)	.009	.031
EDU	-	-						(1)	-.235*
AGE	-	-							(1)

Notes: \*\*  $p < .01$ ; \*  $p < .05$ ;

Square roots of average variance extracted of latent variables are shown in the parentheses;

PPBP=perceived poor business performance, SB=superstitious behaviors, ILC=internal locus of control,

ELC=external locus of control, FM=female dummy variable, EDU=education, AGE=age of respondent

### Hypothesis testing

Results from PLS analysis are presented in Figure 1. Hypothesis 1 predicted a positive association between external locus of control and superstitious behaviors. The result showed that they positively and significantly related ( $\beta = .400$ ;  $p < .001$ ) Thus, hypothesis 1 is supported. Hypothesis 2 predicted a negative association between internal locus of control and superstitious behaviors. The result showed that they negatively and significantly related ( $\beta = -.189$ ;  $p = .005$ ). Thus, hypothesis 2 is supported.

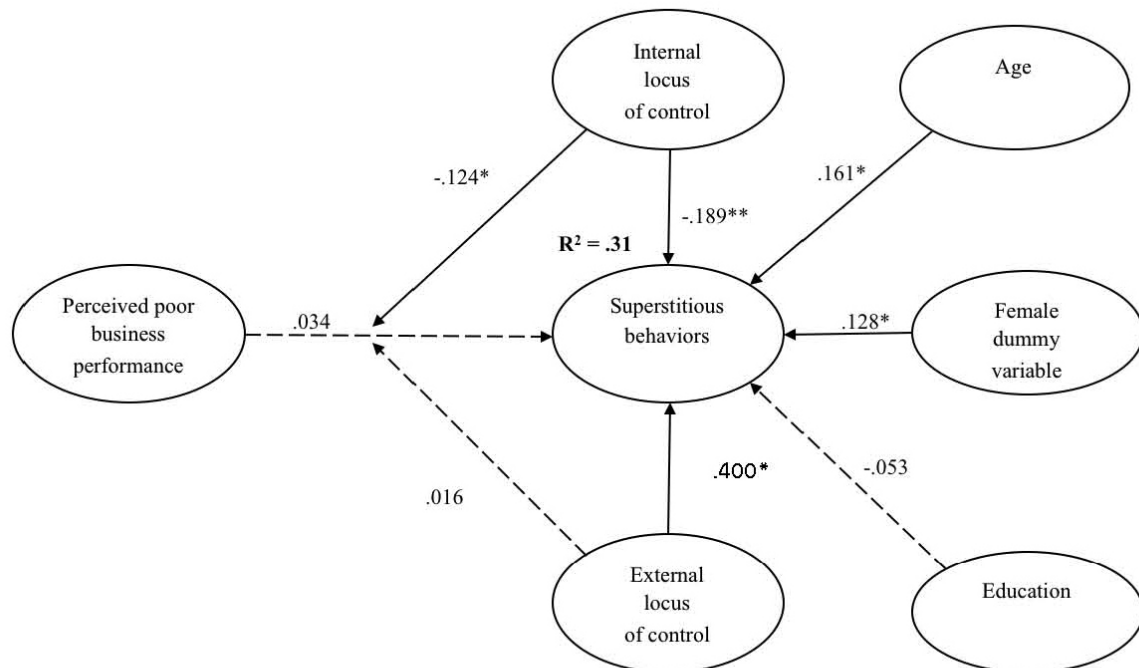
Hypothesis 3 predicted that the positive relationship between perceived poor business performance and superstitious behaviors will strongly present in entrepreneurs with high external locus of control. The result indicated that the interaction term between external

locus of control and perceived poor business performance was not statistically significant ( $\beta = .016$ ;  $p = .413$ ). Therefore, hypothesis 3 cannot be supported. Hypothesis 4 predicted that the positive relationship between perceived poor business performance and superstitious behaviors will strongly present in entrepreneurs with low internal locus of control. The result showed that the interaction term between internal locus of control and perceived poor business performance was negative and statistically significant ( $\beta = .124$ ;  $p = .042$ ). Therefore, hypothesis 4 is supported. Finally, when considering the direct effect of perceived poor business performance on superstitious behaviors, the analysis showed that their direct association was not statistically significant ( $\beta = .034$ ;  $p = .317$ ).

For the association between each control variable and the dependent variable, the results indicated that superstitious behaviors positively associated with the female dummy variable ( $\beta = .128$ ;  $p = .037$ ) and age ( $\beta = .161$ ;  $p = .013$ ), but was not associated with education ( $\beta = -.053$ ;  $p = .229$ ). These results suggest that superstitious behaviors tend to be significantly higher in females and in older people.

Figure 2 presents the nature of the moderating effect of internal locus of control on the link between perceived poor business performance and superstitious behaviors. The illustration

was generated from the standardized data automatically performed using WarpPLS software. It shows that the positive association between perceived poor business performance and superstitious behaviors only presents in entrepreneurs with low internal locus of control. On the other hand, for entrepreneurs with high internal locus of control, perceived poor business performance appears to associate negatively with superstitious behaviors. In summary, this graphical representation is consistent with the prediction suggested in hypothesis 4.



Notes: \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ ; Standardized coefficients are reported;

Solid lines represent significant relationships whereas dash lines represent non-significant relationships.

**Figure 1** PLS Results

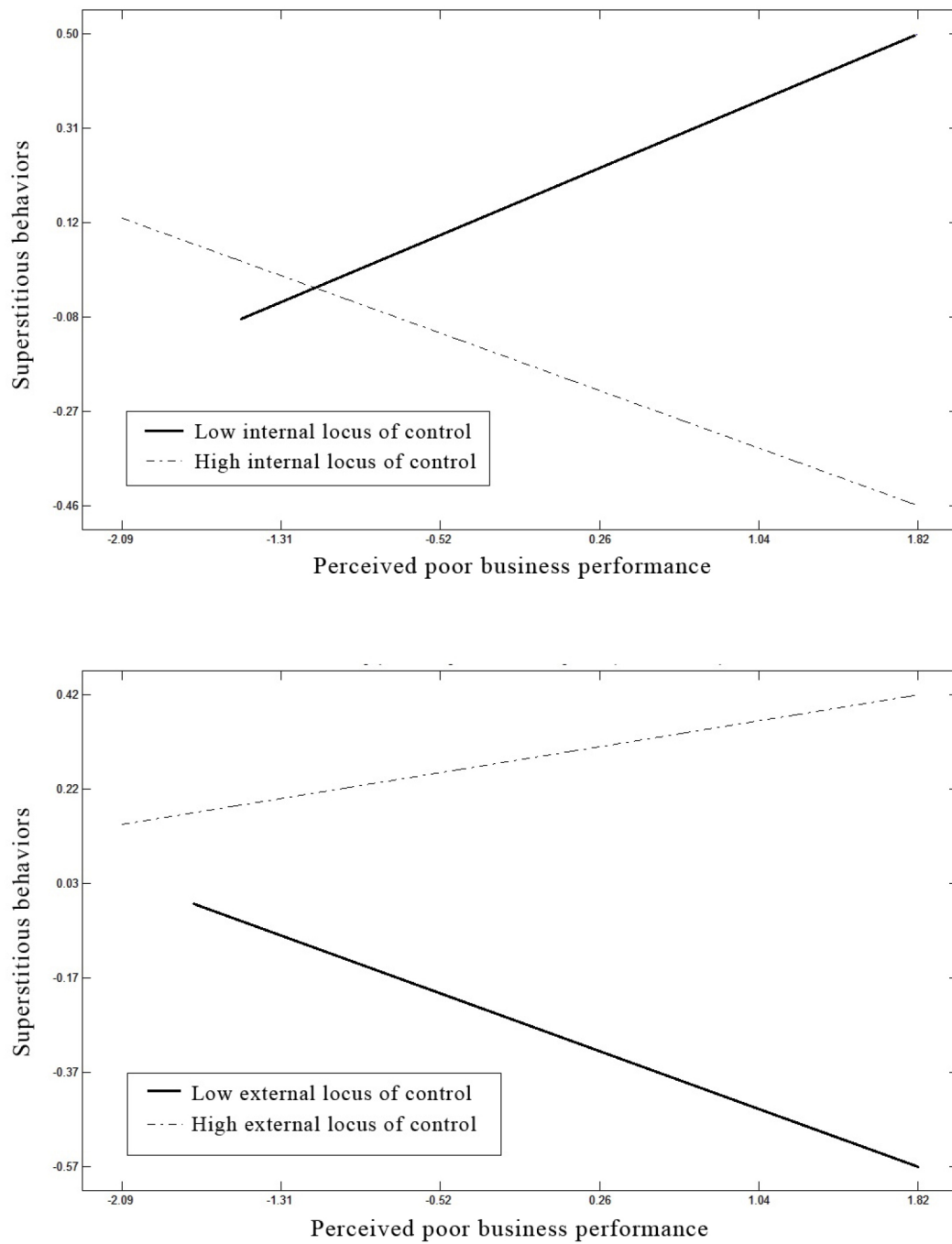


Figure 2 Moderating Effect

## Discussion and Conclusion

### General discussion

This research aims to explore the contributions of entrepreneurs' locus of control and the influence of perceived poor business performance prior to business closedown, to examine whether these personal and situational factors might associate with the degree of superstitious behaviors of Thai entrepreneurs. First, regarding the role of personal characteristics, the results from data analysis provide clear evidence that the degree of superstitious behaviors of Thai entrepreneurs tends to relate significantly to their level of external and internal locus of control. In particular, entrepreneurs who demonstrate a high degree of superstitious behaviors exhibit not only low internal locus of control but also high external locus of control. These research findings provide support to previous research that suggested that perceived lack of control is the characteristic of individuals that commonly explains why they tend to be more superstitious than others (Langer, 1975; Langer & Roth, 1975; Schippers & Van Lange, 2006). For entrepreneurs with strong external locus of control who believe that outcomes in life are largely determined by external factors, the degree of superstitious behaviors tends to be more prominent. However, the degree of superstitious behaviors appears to be lower in entrepreneurs with strong internal locus of control who are confident in their abilities to determine outcomes in their lives.

Regarding the role of perceived poor business performance prior to business closedown that were predicted to associate with the degree of superstitious behaviors of entrepreneurs, the analysis of the moderating effect reveals interesting evidence that whether

perceived poor business performance positively associates with superstitious behaviors tends to depend strongly on the locus of control of entrepreneurs. In particular, internal locus of control is found as the key personal characteristic of Thai entrepreneurs that plays a significant role in moderating the relationship between perceived poor business performance and their superstitious behaviors. With regard to the graphical representation of the moderating effect, it clearly shows that entrepreneurs with low internal locus of control are the group that reports highly in the degree of superstitious behaviors when they perceive that the performance of their businesses was very unsatisfactory prior to business closedown. Generally, this finding is consistent with the studies showing that individuals who lack self-efficacy belief tend to be more prone to experience the feeling of helplessness when faced with stressful situations (Ozment & Lester, 2001), thereby causing them to rely heavily on support from external sources to buffer them from perceived difficulties. Accordingly, it seems to be common for entrepreneurs who exhibit low internal locus of control to be more prone to be more superstitious during the time of pressure.

On the other hand, for entrepreneurs with high internal locus of control, the more they perceive that their business performance was very unsatisfactory prior to business closedown, the lower the degree of superstitious behaviors they reported. Despite being faced with unfavorable business conditions, this group of entrepreneurs tends to be less prone to depend on superstitions for help. In fact, the negative association between perceived poor business performance and superstitious

behaviors for this group of entrepreneurs can be well explained by the characteristic of individuals with internal locus of control who normally take responsibility for and admit their failures instead of blaming or attributing them to external factors (Dijkstra, Beersma, & Evers, 2011). These entrepreneurs may realize that poor business performance tends to be the result of their ineffective management rather than bad fortune. Accordingly, they may consider poor business performance as a learning experience that helps them improve their skills when starting new businesses in the future (Wan-Jing April & Tung Chun, 2011). Because these entrepreneurs tend to have strong confidence in their own capabilities to alter the course of actions, even during difficult times, superstitions seem to be an irrelevant factor for them to deal with business problems.

However, although the direct association between external locus of control and superstitious behaviors is supported, the analysis does not statistically confirm the moderating effect of external locus of control on the link between perceived poor business performance and superstitious behaviors. Despite prior evidence that external locus of control is a characteristic that makes people easily embrace superstitions (Bleak & Frederick, 1998; Schippers & Van Lange, 2006), it tends to be an irrelevant factor that explains the tendency of Thai entrepreneurs to engage in superstitious behaviors during the time of perceived business difficulty. Therefore, this finding emphasizes the importance of self-confidence, as reflected by internal locus of control, of Thai entrepreneurs, which seems to be more crucial in explaining their propensity to embrace superstitious behaviors under unfavorable business circumstances.

Despite the major findings that the present study offers, there are some limitations that need to be considered. First, the sample obtained by the snowball sampling method may not be a true representation of the entire population. In addition, the findings may be difficult to generalize for a larger population because of the small sample size. Second, using self-report measures for data collection can make the data susceptible to subjective bias. Third, because cross-sectional data were used in the analysis, the results can only be interpreted in terms of correlation rather than causality. Future studies that use longitudinal data collection could offer a better support to the causality between constructs.

#### **Theoretical contributions and recommendations for entrepreneurs**

Overall, these results provide theoretical contributions which can be applied to the field of management and entrepreneurship. In particular, the findings provide an empirical support to the predictions suggested by the positive illusion and illusion of control theory regarding the role of perceived control that are important for individuals to cope with uncertainties in life (Langer, 1975; Taylor & Armor, 1996). This research additionally shows that the role of perceived control is also essential for business entrepreneurs whose occupation is highly involved with risk taking (Cui et al., 2016). Generally, for small businesses that normally lack solid financial support to buffer business failure, perceived poor business performance that might lead to business closedown seems to be regarded as a tremendously stressful situation for most entrepreneurs. Even though previous research found that individuals who

are faced with stressful circumstances tend to be the group that is highly susceptible to embrace superstitions to cope with the pressure (Bleak & Frederick, 1998; Schippers & Van Lange, 2006), the findings from this study add extra contribution by confirming that the personal characteristic of Thai entrepreneurs in terms of internal locus of control is the factor that explains their low propensity to depend on superstitions when encountering business problems.

Results from this research provide valuable insights for entrepreneurs who are facing with business difficulties. Given high business uncertainties that entrepreneurs generally face in their career, it is important for them to have the sense of control to facilitate them to cope effectively with the business uncertainties. The sense of control may come from internal self or from external sources depending on the locus of control of the entrepreneurs. However, for those who have low internal locus of control, they may need to rely on superstitious behaviors to help them cope with the business uncertainties and to gain more confidence during the difficult time in their career. Nonetheless, although engaging in superstitious behaviors may help some entrepreneurs with low internal locus of control buffer negative feelings and create peace of mind during the stressful period, it may not fundamentally help them cope with problems when compared to those with high internal locus of control who have more confidence in their own self. Therefore, this research suggests that having self-confidence seems to be the quality of entrepreneurs that precludes them from relying on the power of superstitions, to which its causal link to the expected outcome is inherently

vague (Langer, 1975; Schippers & Van Lange, 2006; Shermer, 2002). The author suggests that it is crucial for entrepreneurs to develop the sense of efficacy so that they can deal with any difficulty that may happen in business. In fact, this suggestion is also consistent with literature suggesting that internal locus of control tends to be the personal characteristic that can highly determine entrepreneurial success (Schjoedt & Shaver, 2012; Schoon & Duckworth, 2012; Zulhaidir, Febrica, & Eliyana, 2015).

### **Directions for Future Research**

Lastly, given that research on superstitious behaviors of entrepreneurs is still not adequately explored, future research is required to expand the knowledge in this area. For example, future research may consider some other factors that might cause entrepreneurs to embrace superstitious behaviors. For instance, social influence (such as the influence of family and friends who adopt superstitious behaviors) may play a role in motivating entrepreneurs to engage in superstitious behaviors. Moreover, future research may also investigate whether superstitious behaviors of entrepreneurs can lead to better business performance, and under which conditions this role of superstitious behaviors actually matters. Future research may also implement the experimental method or use a longitudinal data collection to examine the causal effect of superstitious behaviors on outcome variables.

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