



## Superstitious Behaviors and Perceived Job Performance of Internal Auditing Staffs in Thailand

Peerayuth Charoensukmongkol \*

*International College, National Institute of Development Administration, Thailand*

Received 8 July 2016; Received in revised form 6 September 2017

Accepted 5 October 2017; Available online 7 March 2018

### Abstract

This research explores some traits and job-related characteristics that might be associated with superstitious behaviors. The author also aims to investigate the connection between superstitious behaviors and perceived job performance. The survey data was collected from 141 internal auditing staffs at a leading financial institution in Thailand. Results from partial least square analysis reveal that external locus of control and the lack of opportunity for career advancement are the major factors that strongly predict superstitious behaviors. The analysis also confirms the positive contribution of superstitious behaviors on perceived job performance. Furthermore, the role of superstitious behaviors on perceived job performance is strongly moderated by an external locus of control, a lack of opportunity for career advancement, and inadequate experience in the auditing job. Overall, these findings provide important evidence regarding some conditions that might explain why individuals embrace superstitious behaviors and what conditions could cause the individuals to benefit from such behaviors.

### Keywords

Locus of control, Job performance, Efficacy, Career advancement, Job stress, Spirituality

## Introduction

Beliefs in paranormal and supernatural powers have prevailed in almost every society at different points in their development, particularly during the ancient eras, when knowledge of the sciences was not well-developed. Nowadays, the world has evolved and is currently experiencing a period of rapid technological advancement. While many paranormal phenomena embraced by people in the past have already been debunked by scientific knowledge, it is still evident that some beliefs are still ingrained in the way of life of people in many cultures, even in highly developed countries (George & Sreedhar, 2006; Vyse, 2000). Interestingly, the topic about the influence of superstitious beliefs in the modern world is also an issue under investigation in academic research, following the seminal work of Skinner (1948). Research on the behaviors and outcomes associated with superstitious beliefs has been widely documented in the area of sports (Bleak & Frederick, 1998; Burger & Lynn, 2005; Schippers & Van Lange, 2006; Womack, 1992) and consumer behaviors (Carlson et al., 2009; Hernandez et al., 2008). However, little has been known about the role of superstitions that might be associated with workplace outcomes. Thus, the present research aims to provide empirical evidence in order to expand the understanding regarding this issue in a context that has never been explored.

In particular, the study focuses on internal auditing staffs in Thailand as the key research participants. Conventional wisdom tells us that uneducated people are more prone to adopt superstitious beliefs than those who are highly educated (Preece & Baxter, 2000), and using internal auditing staffs whose careers involve a high level of professionalism and expertise as the key participants will offer more insight about the role of superstitious beliefs on work-related outcomes. Theoretically, positive illusion (Taylor & Armor, 1996) and illusion of control (Langer, 1975) are two related frameworks that the study uses in order to explain the tendency to adopt superstitious behaviors. There are two research questions that the study aims to investigate. First, the study aims to explore some traits and work-related characteristics that might explain the propensity of individuals to adopt superstitious behaviors. Second, the author seeks to address whether there is a connection between superstitious behaviors and perceived job performance exhibited by these individuals, and if the connection exists, the question would be whether or not the outcome that the individuals exhibit is contingent on the trait and the work-related characteristics of the individuals. The findings from this research will provide a significant contribution that will explain why some adults in professional careers in Thailand are more prone to embracing superstitions, and whether these individuals tend to benefit from such beliefs. The implication from this research is critical for a society where superstitious beliefs tend to be ingrained in the way of life of its people, such as in Thailand.

## Background and hypotheses

### Theories

The term *superstition* is defined by Carlson et al. (2009, p. 691) as “a belief and/or practice that is designed to influence an outcome, is based upon an unknown or mysterious force, and is inconsistent with the scientific knowledge available within a culture.” While superstitions are issues that cannot be clearly explained or proven by scientific knowledge, it is evident that people in many cultures still embrace them (George & Sreedhar, 2006). Two related theoretical frameworks that explain the tendency to adopt superstitious behaviors are positive illusion (Taylor & Armor, 1996) and illusion of control (Langer, 1975). Generally, these two theories emphasize the importance of perceptions of control over one's own life. First, the theory of positive illusion (Taylor & Armor, 1996) posits that when individuals are faced with a stressful situation, they often respond with mildly distorted positive perceptions of themselves, an exaggerated sense of personal control, and an 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 make active efforts to restore them by forming a belief that they have control over at least some aspects of that event (Taylor & Armor, 1996). In particular, Langer (1975) introduces the “illusion of control,” which is regarded as one type of the positive illusion, suggesting 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 illusion and control illusion can serve as adaptive coping strategies that individuals use for helping to cope with stress and perceived uncertainty in their surroundings, as well as to facilitate psychological adjustment (Taylor & Armor, 1996; Wiseman & Watt, 2004).

### Personal characteristics and job-related factors that determine superstitious behaviors

Locus of control reflects the personal belief that outcomes in one's life largely come from internal or external sources (Levenson, 1973). While, on the one hand, internal locus of control reflects the belief that competencies and determination that individuals exert will significantly determine the outcomes that individuals will achieve, on the other hand, external locus of control reflects the belief that the success or failure that individuals experience is strongly influenced by the external and uncontrolled factors such as fate, destiny, and fortune. Generally, individuals who strongly believe that they have no control over outcomes in life - as characterized by high external locus of control - tend to lack the sense of efficacy for them to be able to make significant life changes (Roddenberry & Renk, 2010).

Accordingly, these people tend to perceive that no matter how much effort they put in, the efforts cannot easily lead to outcomes that were already predetermined by fate. Even favorable outcomes that they have achieved are attributed to luck or chance (Buckelew et al., 2013). Fundamentally, the belief that one has no control over a situation can be detrimental to work performance (Conley & You, 2014). When individuals strongly believe in the influence of external sources, it may discourage individuals from developing their own knowledge and competencies in order to achieve desired outcomes (Wang et al., 2010). The perception that good and bad incidents that happen in life are predetermined and are beyond personal control has been proposed in literature as the influential factor that motivates individuals to seek external sources that they can rely on so that they can develop the confidence to regain control over incidents in life (Langer, 1975; Langer & Roth, 1975). As a result, this group of people can easily adopt superstitions as a means to helping them overcome perceived weaknesses. In fact, this role of external locus of control on the propensity of individuals to embrace superstitious beliefs has been verified in previous research (Bleak & Frederick, 1998; Dag, 1999; Schippers & Van Lange, 2006). Therefore, the following hypotheses are presented:

*Hypothesis 1: External locus of control will lower perceived job performance.*

*Hypothesis 2: External locus of control positively associates with superstitious behaviors.*

In addition to the role of external locus of control, some job-related characteristics - including lack of opportunity for career advancement and insufficient job experience - can influence the perceived importance that individuals place on superstition. According to Schippers and Van Lange (2006), the propensity to embrace superstitious beliefs tends to be common when individuals face a situation characterized by uncertainty, and when the outcomes that individuals expect are regarded as valuable. Empirical evidence also shows that superstitious behaviors tend to prevail when individuals are under stress and have a strong desire for control (Bleak & Frederick, 1998; Keinan, 2002). A lack of career advancement and low job experience tend to align with these conditions very well, especially for individuals who work in the area of internal auditing, because the stressful nature of the tasks might inevitably cause an individual to face tremendous work pressures.

First, career advancement is regarded as one of the indicators of success for working people (Chong, 2013). In a developing economy such as that of Thailand, career advancement also strongly reflects the socioeconomic status of individuals. According to the expectancy theory, having the opportunity to advance in one's career serves as a source of motivation for employees to exert more effort in the workplace because it makes employees realize that the outcomes they achieve will be rewarded by the organization (Chen et al.,

2006). However, in reality, the chance to be promoted tends to be beyond the control of an employee (Lyness & Thompson, 2000). Apart from actual work performance and qualifications, factors such as gender discrimination, cultural fit, social network, and even politics within the organization are among the major reasons that prevent some employees from having a chance to advance their career (Johnson & Eby, 2011; Tlaiss & Kauser, 2011). Therefore, employees who perceive that the organization does not provide them with the opportunity for career advancement tend to face more career pressure and are more likely to embrace superstitious behaviors in the hopes that the supernatural powers will somehow grant them the opportunity they desire. Therefore:

*Hypothesis 3: There is a positive relationship between career advancement and perceived job performance.*

*Hypothesis 4: Having the opportunity for career advancement will negatively associate with superstitious behaviors.*

Job experience that individuals have gained in the area of internal auditing is considered a crucial characteristic required for the internal auditors to perform the job effectively (Abdolmohammadi & Wright, 1987). In fact, research within the literature has found that career-related experience is a major factor that determines outcomes that all employees achieve in their jobs (Quinones et al., 1995). Inadequate experience can be a major obstacle for internal auditing tasks that inherently require a substantial degree of sophistication and accuracy (Abdolmohammadi & Wright, 1987). As a result, those with low levels of experience in this professional career tend to face higher levels of job pressure and are more susceptible to job stress than those with solid levels of experience (Humpel & Caputi, 2001). Therefore, it is possible that individuals who lack career experience are more prone to adopting superstitious behaviors as a means of alleviating the concerns that they have regarding their insufficient work experience. Therefore, the following hypotheses are presented:

*Hypothesis 5: There is a positive relationship between job experience and perceived job performance.*

*Hypothesis 6: Job experience negatively associates with superstitious behaviors.*

#### **The role of superstitious behaviors on perceived job performance**

Generally, scholars argue that it is difficult to draw a causal linkage between superstitious behaviors and outcomes (Joukhador et al., 2004; Vyse, 2000; Womack, 1992). Results from previous research are also unable to confirm the absolute benefits that superstitious behaviors exert on performance measures (Aruguete et al., 2012; Bleak & Frederick, 1998; Burger & Lynn, 2005). However, one possible scientific explanation why

superstitious behaviors can lead individuals to achieving favorable outcomes is the psychological effect that superstitions may have in terms of helping individuals to develop the confidence necessary to be successful in the tasks that they perform. Langer (1975) labeled this phenomenon as “the illusion of control.” In fact, this positive role of superstitious beliefs is similar to what scholars in the medical field call “a placebo effect” (Beecher, 1955). The basic rationale behind the effectiveness of the placebo effect is that the more that individuals believe that they will benefit from a treatment, the more likely they will obtain a desired result. This effect could be the same for superstitions as well. In this regard, the role of superstitious beliefs can also serve as a “self-fulfilling prophecy” that motivates individuals to behave - intentionally or unintentionally - in ways that will lead them to achieve the outcomes that they expect from the superstitious power (Jussim & Harber, 2005). Therefore, the following hypothesis is presented:

*Hypothesis 7: There is a positive relationship between superstitious behaviors and perceived job performance.*

Although the author proposed that superstitious behaviors can possibly play an influential role in helping individuals to achieve a favorable work performance, it is crucial to understand that not everyone will be affected by superstitious beliefs to the same magnitude (Kramer & Block, 2007). First, the study proposes that those who strongly believe in the influence of external factors - as exhibited in high external locus of control - are more prone to being affected positively by superstitious behaviors. These people tend to have a strong belief that superstitions will help them to overcome the perceived threats from external factors that might impede them from achieving the desired performance. Generally, adopting superstitious behaviors for this group of people serves as a source of control that will substantiate the efficacy belief that they can succeed in the tasks that they perform (Langer, 1975). In addition, because this group of people tends to have a strong faith in what they believe in, they might be more sensitive to the placebo effect or the self-fulfillment prophecy of superstitions, which may eventually lead them to obtain the favorable outcome that they desire from the superstitious beliefs. In fact, evidence has been shown in literature that having a strong faith in one's beliefs (e.g., religiosity) can connect the individual to the positive outcomes he/she experiences in life, and also in the workplace (Walker, 2013). Therefore:

*Hypothesis 8: External locus of control will positively moderate the relationship between superstitious behaviors and perceived job performance.*

In addition, employees who lack the opportunity for career advancement, as well as those who have inadequate work experience in the internal auditing job, may obtain more benefits from superstitious behaviors than others. Because these two groups of employees

tend to encounter high levels of uncertainty and stress in their careers, the confidence and sense of control that these employees gain from superstitious beliefs can alleviate the pressures that they face in the internal auditing job. For those who lack the opportunity for career advancement, because the chance to be promoted is largely decided by the organization, the belief that superstitious power will help to eliminate the obstacles that prevent them from climbing the career ladder not only provides hope for these employees, helping them to gain more confidence in their performance, but also creates a strong expectation that they will somehow be granted the opportunity to advance in their career. For those with inadequate career experience in the internal auditing job, superstitious beliefs can also help them develop more confidence in their competency for effectively dealing with the challenges in the auditing tasks. Therefore, the following hypotheses are presented:

*Hypothesis 9: Job experience will negatively moderate the relationship between superstitious behaviors and perceived job performance.*

*Hypothesis 10: Opportunity for career advancement will negatively moderate the relationship between superstitious behaviors and perceived job performance.*

## **Methods**

### **Samples and data collection procedure**

Participants in this study are internal auditing staffs who work in a leading financial institution in Bangkok, Thailand. The internal auditors were contacted through the assistance of a graduate student who also worked as an internal auditor in the department. There is a total of 154 internal auditors working in the financial institution. The data was collected through a self-administered questionnaire survey. The questionnaires were distributed to participants and were collected in person. The author received a total of 141 completely filled surveys, which account for a 92% response rate. Information about the demographic and job characteristics of the participants is summarized in Table 1.

### **Measures**

The measure of *perceived work performance* was developed to capture various aspects of performance related to auditing jobs. Respondents were asked to self-evaluate nine aspects of performance that they had recently achieved. The items include the following statements: "My overall performance evaluation is excellent," "I have created satisfactory outcomes to my department," "I have achieved the annual audit plan," "I have achieved internal audit goals and objectives," "My recent performance evaluation met or exceeded the target," "The number of my reports correction was less than or equal to the target," "I spent time less than or equal to the target to prepare the reports after fieldworks," "I spent time less

than or equal to the target to prepare the reports to the management of the auditee," and "My recent work evaluation from the auditee satisfaction survey met or exceeded the target." The questions were rated using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree").

**Table 1 Descriptive characteristics of samples**

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Gender	Male: 61 (43%) Female: 80 (57%)
Age (in year)	Mean: 39 Standard deviation: 6.47
Job experience in internal auditing (in year)	Less than 1 year: 1 (1%) 1-3 year: 4 (3%) 4-6 year: 8 (6%) 7-10 year: 22 (16%) More than 10 year: 106 (74%)
Job tenure (in year)	Less than 1 year: 1 (1%) 1-3 year: 10 (7%) 4-6 year: 18 (13%) 7-10 year: 26 (18%) More than 10 year: 86 (61%)
Job position	Senior manager: 15 (11%) Junior manager: 15 (11%) Senior staff: 96 (67%) Junior staff: 15 (11%)
Educational level	Bachelor's degree: 42 (30%) Master's degree: 99 (70%)
Professional certificate	Yes: 137 (3%) No: 4 (97%)

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*External locus of control* was measured by a chance control scale developed by Levenson (1973). A sample item includes, "When I get what I want, it's usually because I'm lucky." These questions were rated using five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree").

The measure of *opportunity for career advancement* was developed by the author. The measurement consists of three items, including "I have a chance to be promoted in my career," "My organization provides me with the opportunity to advance my career goals," and

"My organization takes steps to insure that I maximize my career potential." These questions were rated using five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree").

Several scholars have developed a scale to measure *superstitious behaviors* (Carlson et al., 2009; Hernandez et al., 2008; Wiseman & Watt, 2004). However, these scales were developed based on superstitious beliefs in specific countries; therefore, they cannot be applied across cultural contexts. Therefore, the scale of superstitious beliefs in Thai culture was developed by the author, which is comprised of five different superstitious practices. Respondents were asked to rate the degree of importance they place on each aspect of superstitious practice in daily life, including (1) belief in horoscope and fortunetelling, (2) engaging in superstitious rituals to overcome (or enhance) bad (good) *karma*, (3) praying to spiritual and supernatural beings to ask for achievement and/or luck, (4) choosing to perform important tasks during auspicious dates and times, and (5) collecting and/or carry amulets. These questions were rated using five-point Likert scale, ranging from 1 ("not important") to 5 ("very important").

*Job experience* was measured by asking participants to indicate the number of years that they have worked in the auditing field. This construct was measured by using the ordinal scale, ranging from 1 ("less than one year"), 2 ("one to three years"), 3 ("four to six years"), 4 ("seven to ten years"), and 5 ("more than 10 years").

Personal and workplace characteristics that might affect job performance are incorporated into the analysis as control variables. These factors include age, gender, education, job position, job tenure, coworker relationship, pay satisfaction, and whether or not a participant holds a professional certification. *Age* was measured in years. *Gender* was measured as a dummy variable (male=1; female=0). *Education, job position, and job tenure* were measured by the ordinal scale. The measures of *pay satisfaction* and *coworker relationship* were developed by the author.

*Pay satisfaction* was measured using four items, including "My salary is sufficient for living expenses," "I am satisfied with the financial compensation and welfare that the organization provides," "I am satisfied with the overtime payment," and "Per diem in performing work outside the organization is appropriate." *Coworker relationship* was measured by three items, including "Colleagues have genuine care for each other," "Team work among colleagues in the department is excellent," and "Colleagues share knowledge with one another when performing internal auditing activities." All items were rated by five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Finally, the variable indicating whether or not a participant holds a professional certification was coded as a dummy variable (1=yes, 0=no).

**Table 2 Correlations among variables, internal consistency, and convergent validity**

Cronbach's alpha coefficient	Composite reliability coefficient	PJP	PAY	COWK	CADV	CERT	JT	XP	JPOS	GEN	AGE	EDU	STB	ELC	
PJP	.949	.957	(.844)	.578**	.501**	.438**	.004	.134	-.025	-.387**	.041	.124	.114	.091	.148
PAY	.909	.936		(.887)	.583**	.55**	.058	.029	-.097	-.317**	-.079	.131	-.142	-.043	.142
COWK	.935	.959			(.941)	.435**	-.027	-.029	-.15	-.214*	-.007	.095	-.053	.003	.138
CADV	.978	.986				(.979)	.015	-.188*	-.263**	-.118	-.141	.056	-.223**	-.213*	.024
CERT	-	-					(1)	.055	.081	.119	.063	.062	-.111	-.057	-.17*
JT	-	-						(1)	.683**	-.422**	.08	.561**	.163*	.08	.018
XP	-	-							(1)	-.361**	.062	.513**	.178*	.069	-.062
JPOS	-	-								(1)	0	-.533**	-.24**	.068	.074
GEN	-	-								(1)	-.005	-.026	-.152	-.183*	
AGE	-	-									(1)	-.007	-.099	-.088	
EDU	-	-										(1)	.234**	.104	
STB	.951	.962											(.915)	.702**	
ELC	.957	.967												(.924)	

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

Average variance extracted of latent variables is shown in parentheses.

PJP, perceived job performance; PAY, pay satisfaction; COWK, coworker relationship; CADV, career advancement; CERT, professional certificate; JT, job tenure; XP, job experience; JPOS, job position; GEN, gender dummy variable ("male=1; female=0"); AGE, age; EDU, education; STB, superstitious behavior; ELC, external locus of control.

## **Data analysis**

Partial least squares (PLS) regression was selected as a statistical tool to analyze the data. The analysis allows for multiple hypotheses to be assessed simultaneously, while also enabling the use of reflective scales. It also permits the simultaneous assessment of both measurement and structural models. PLS is appropriate for the data used in this research because it does not require a large sample size as compared to other SEM techniques (Chin, 1998). Furthermore, it does not require that the data be normally distributed (Kline, 2005). PLS analysis is performed using WarpPLS version 4.0.

## **Results**

Validity and reliability tests were performed before performing PLS analysis. Convergence validity was assessed using factor loadings, and the results indicate that all factor loadings are above the .5 minimum requirement as suggested by Hair et al. (2009). Second, discriminant validity was assessed by comparing the average variance extracted (AVE) to the squared correlation coefficient. Fornell and Larcker (1981) suggest that the square root of the AVE must be greater than correlations between the constructs in order for discriminant validity to exist. The results satisfy this requirement, as shown in Table 2. Third, construct validity was assessed using Cronbach's alpha coefficient and composite reliability coefficient. The minimum requirement for these two indicators is .7 (Nunnally, 1978). The results, as shown in Table 2, showed that the reliability indicators of all latent variables are higher than this threshold.

Figure 1 presents the results from PLS estimation. The standardized coefficient and *t* values were calculated using a bootstrap resampling technique. This study used a resampling procedure with 100 subsamples, as recommended by Efron et al. (2004).

Hypothesis 1 predicted that the external locus of control positively associates with superstitious behaviors. The analysis indicates that their relationship is positive and statistically significant ( $\beta=.711$ ;  $p\le.001$ ). Thus, Hypothesis 1 is supported.

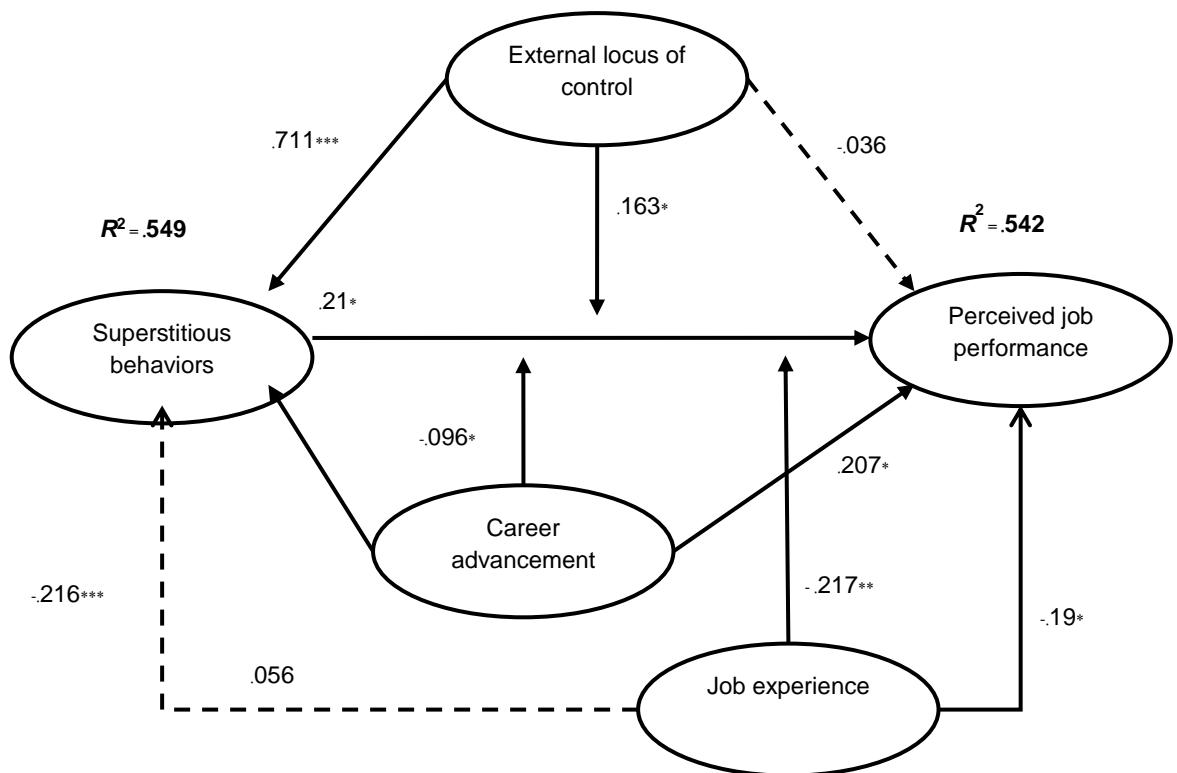
Hypothesis 2 predicted that job experience associates negatively with superstitious behaviors. The analysis shows that their relationship is positive; thus, this finding contradicts the hypothesis. However, the association is not statistically significant ( $\beta=.056$ ;  $p=.1$ ). Thus, Hypothesis 2 cannot be supported.

Hypothesis 3 predicts that low opportunity for career advancement will associate with higher superstitious behaviors. The analysis reveals the negative relationship between career advancement and superstitious behaviors ( $\beta=-.216$ ;  $p\le.001$ ). Thus, Hypothesis 3 is supported.

Hypothesis 4 predicted a positive relationship between superstitious behaviors and perceived job performance. The analysis shows that these two variables are positively and significantly associated ( $\beta=.21$ ;  $p\leq.05$ ). Thus, Hypothesis 4 is supported.

Hypothesis 5 predicted that the external locus of control would lower perceived job performance. Although the association between these two variables is negative as hypothesized, it is not statistically significant ( $\beta=-.036$ ;  $p=.369$ ). Therefore, Hypothesis 5 is not supported.

Hypothesis 6 predicted that the external locus of control would positively moderate the relationship between superstitious behaviors and perceived job performance. The analysis shows that the interaction term between the external locus of control and superstitious behaviors is positive and statistically significant ( $\beta=.163$ ;  $p\leq.05$ ). This finding suggests that the positive association between these two variables is stronger for individuals who exhibit a high external locus of control. Therefore, Hypothesis 6 is supported.



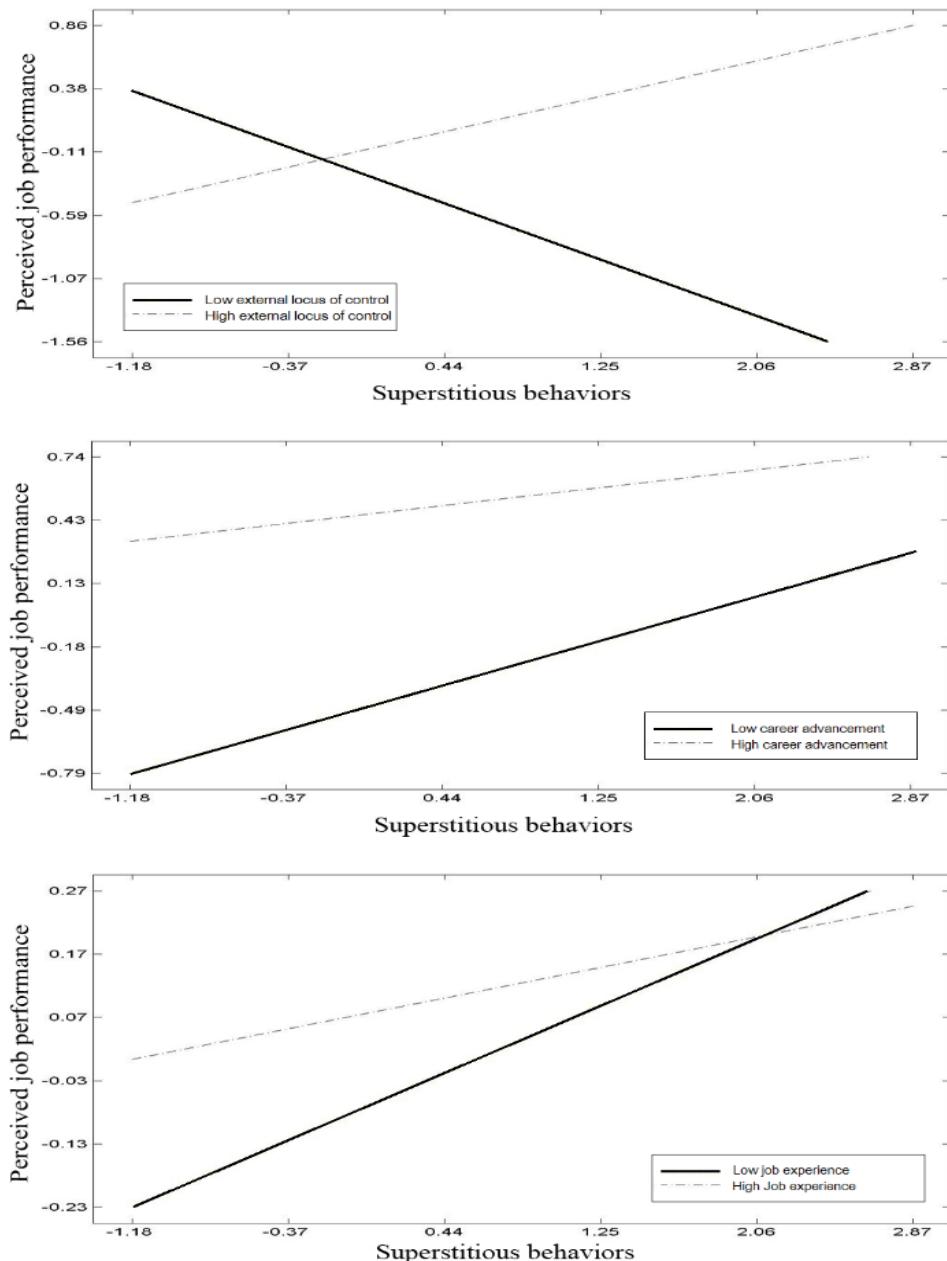
Notes: \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ ;  
 Standardized coefficients are reported;  
 Solid lines represent significant paths

**Figure 1** PLS results

Hypothesis 7 predicted a negative relationship between job experience and perceived job performance. The finding suggests that their association is negative and statistically significant ( $\beta = -.19$ ;  $p \leq .05$ ). Thus, Hypothesis 7 is supported.

Hypothesis 8 predicted that job experience will negatively moderate the relationship between superstitious behaviors and perceived job performance. The analysis indicates that the interaction term between job experience and superstitious behaviors is negative and statistically significant ( $\beta = -.217$ ;  $p \leq .01$ ). This finding suggests that the positive association between these two variables is stronger for individuals who have low job experience. Therefore, Hypothesis 8 is supported.

Hypothesis 9 predicted that lack of career advancement would lower perceived job performance. The finding suggests that the association between career advancement and perceived job performance is positive and statistically significant ( $\beta=.207$ ;  $p\leq.05$ ). Thus, Hypothesis 9 is supported.



**Figure 2** The interaction effects

Hypothesis 10 predicted that lack of career advancement would positively moderate the relationship between superstitious behaviors and perceived job performance. The analysis indicates that the interaction term between career advancement and superstitious behaviors is negative and statistically significant ( $\beta=-.096$ ;  $p\leq.05$ ). This finding suggests that the positive association between these two variables is stronger for individuals with lower opportunity for career advancement. Therefore, Hypothesis 10 is supported.

For the influence of the control variables, the analysis shows that perceived job performance positively associated with education ( $\beta=.11$ ;  $p\leq.05$ ), gender dummy variable ( $\beta=.129$ ;  $p\leq.05$ ), job tenure ( $\beta=.199$ ;  $p\leq.05$ ), pay satisfaction ( $\beta=.332$ ;  $p\leq.001$ ), and coworker relationship ( $\beta=.148$ ;  $p\leq.05$ ); however, it negatively associated with job position ( $\beta=-.224$ ;  $p\leq.01$ ).

Figure 2 presents the illustrations obtained from the interaction effects. The top illustration in Figure 2 reveals that, for individuals with a low external locus of control, more superstitious behaviors negatively associated with perceived job performance. However, for individuals with a high external locus of control, more superstitious behaviors positively associated with higher perceived job performance. The second illustration in Figure 2 reveals the positive association between superstitious behaviors and perceived job performance in both sub-sample groups. However, for individuals with a low opportunity for career advancement, the positive linkage is stronger than individuals with a high opportunity for career advancement. Lastly, the third illustration in Figure 2 reveals the positive association between superstitious behaviors and perceived job performance in both sub-sample groups. In addition, it shows that, for individuals with less job experience, the positive linkage is stronger than individuals with more job experience.

## Discussion

This research aims to investigate the role of superstitious behaviors on the perceived job performance of internal auditing staffs in Thailand. The study also aims to explore some traits and job-related characteristics of the internal auditing staffs that might explain why some individuals tend to have strong propensity to adopt superstitious beliefs. The findings from PLS estimation unveiled that a belief in superstitions tends to be more prominent for employees who exhibited a higher external locus of control and those who perceive that the organization provided less opportunity for career advancement. However, the analysis did not confirm the significant role of job experience on superstitious behaviors. Some explanation for this unsupported result is that employees may perceive job experience as the factor that is still under their control. As individuals keep practicing and honing their skills in auditing jobs, they will have a higher chance to gain more expertise in these areas. On the other hand, a lack of opportunity for career advancement and external locus of control

tend to be the factors that are beyond the control of individuals, and this could be the reason why only these two factors are strongly associated with superstitious behaviors, while lack of job experience is not. As a result, the overall findings provide evidence to support the argument in prior research that not everyone will be prone to embracing superstitious beliefs (Kramer & Block, 2007), but those who lack a sense of control tend to have a higher propensity to rely on superstitions (Hernandez et al., 2008; Langer, 1975; Womack, 1992). The findings also support the argument in previous research suggesting that belief in superstitions tends to be more prominent in people who encounter higher levels of stress and uncertainty (Burger & Lynn, 2005; Carlson et al., 2009; Keinan, 2002). Two factors supported in the hypotheses appear to fit these conditions as well.

Regarding the outcome associated with superstitious behaviors, statistical evidence unveiled a positive connection between superstitious behaviors and the perceived job performance of internal auditing staffs in Thailand. Although prior research revealed mixed results regarding the role of superstitious behaviors on outcomes (Aruguete et al., 2012; Bleak & Frederick, 1998; Burger & Lynn, 2005), the finding from the present study offers additional evidence about the positive contribution of superstitious beliefs on the perceived performance measure of the sample in Thai culture. Furthermore, the analysis of the moderating effect provided additional evidence that not everyone would benefit from superstitious beliefs to the same magnitude. The influence of superstitious behaviors on outcomes is particularly stronger for those who exhibited a high external locus of control, those who lack opportunities for career advancement, and those with inadequate job experience. Overall, these findings imply that, for employees who feel that life is uncontrollable and for those who experience higher job-related psychological tension, beliefs in superstitions serve as a factor that might boost the level of confidence that these individuals have in their own performance. Still, even for individuals who did not suffer from lack of career advancement and lack of career experience, superstitious behaviors also exert a positive contribution to their perceived performance, but to a lesser extent. Generally, the positive contribution of superstitious behaviors across the sub-sample groups may be reflected by the influence of superstitious beliefs that are quite common in Thai culture.

However, one interesting finding from the moderating effect analysis is that the belief in superstitions was found to associate negatively with perceived job performance for individuals who exhibit a low external locus of control. For this group of individuals, the stronger they engaged in superstitious behaviors, the lower the perceived performance that they exhibited. Some explanation for this finding is that, for people who generally perceived that outcomes in life are controllable and still under the influence of their own actions, having strong superstitious beliefs may tamper with their self-confidence. For example, when the individuals are informed about a possible bad fortune and they strongly believe in its veracity,

it is possible that the individuals may begin to be skeptical and lose confidence in their own competencies. In particular, this explanation provides additional insight about the negative role of superstitious beliefs that may affect an individual's sense of efficacy.

Despite the contributions that this study provides, the results obtained from the analysis may suffer from some possible weaknesses. First, the analysis was conducted using cross-sectional data, thereby making the direction of the causality between constructs unable to be confirmed. Also, the study only collected the data from one corporation, with a relatively small sample size.

## Conclusion

Overall, the main findings from the present research provide evidence that explain why some people are more prone to embrace superstitious beliefs than others, and under which conditions people tend to benefit from superstitious behaviors. More importantly, these findings offer crucial implications for a society where superstitions are still deeply engrained in people's way of life, especially in Thailand. Despite the advancement in technology and the level of scientific knowledge that humanity has achieved, the belief in superstition still prevails in mankind. Ironically, although technological advancement has provided tremendous benefits to the culture in various aspects, individuals still feel insecure deep inside. A high level of stress and psychological tension that individuals experience from intense competition at work or in society in general can make some groups of people become susceptible to embracing the scientifically unproven practices of superstition, which are believed to help them overcome the perceived weaknesses that they endure.

Nevertheless, while believing in supernatural powers is perceived as preposterous in the world of modern sciences, this research has shown that superstitious behaviors are still common practices that are adopted among individuals who feel insecure in their lives and in their careers. Moreover, the sense of insecurity that these individuals experience also contributes to the perceived benefit associated with the superstitious behaviors that they adopt. Although the best knowledge of science nowadays is still unable to clearly explain the real effect of superstitious behaviors on the outcomes that individuals obtain in their lives, for some people, beliefs in supernatural powers tend to serve as a source of confidence and provide a sense of control that encourages them to face challenges and difficulties more effectively. Whether the outcomes that these individuals achieve actually derive from the power of supernatural beings, or whether it is simply a placebo effect obtained from having a strong faith in what they believe, are issues that are difficult to address in scientific research.

As a final thought, we may not be able to judge whether superstitious behaviors adopted by the individual should be regarded as preposterous or not, as long as the individual has adopted them along with wisdom. Nonetheless, the result indicating that more

superstitious behaviors appear to lower the perceived job performance of people who already exhibit a high sense of control provides crucial evidence that can explain why competent people can be swayed by strong beliefs in superstitions. In the end, letting oneself become overwhelmed by superstitions without rationality can cause a serious impact on individuals, as it will prevent them from recognizing the true sources of achievement in life, which are confidence, competency, and determination.

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