

2006

The impact of efficacy on work attitudes across cultures

Fred Luthans

University of Nebraska - Lincoln, fluthans1@unl.edu

Weichun Zhu

University of Nebraska - Lincoln

Bruce Avolio

University of Nebraska - Lincoln, bavolio@u.washington.edu

Follow this and additional works at: <https://digitalcommons.unl.edu/managementfacpub>



Part of the [Business Administration, Management, and Operations Commons](#), [Management Sciences and Quantitative Methods Commons](#), and the [Strategic Management Policy Commons](#)

Luthans, Fred; Zhu, Weichun; and Avolio, Bruce, "The impact of efficacy on work attitudes across cultures" (2006). *Management Department Faculty Publications*. 149.

<https://digitalcommons.unl.edu/managementfacpub/149>

This Article is brought to you for free and open access by the Management Department at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Management Department Faculty Publications by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Published in *Journal of World Business*, vol. 41, iss. 2 (June 2006), pp. 121–132.
Copyright © 2005 Elsevier Inc. Used by permission
Published online 12 October 2005.

The impact of efficacy on work attitudes across cultures

Fred Luthans, Weichun Zhu, and Bruce J. Avolio

Department of Management, Gallup Leadership Institute, University of Nebraska-Lincoln,
Lincoln, NE 68588-0491, USA

Corresponding author – F. Luthans, fluthans@unl.edu

Abstract

To answer the call for more cross-cultural research, this study analyzed the efficacy and work attitudes of employee samples from the U.S. and Southeast Asia (Indonesia, Malaysia, and Thailand). The results showed that across these two samples, general efficacy had a significant positive relationship with organizational commitment and a significant negative relationship with intention to turnover. Further analysis also indicated that job satisfaction mediated the relationship between general efficacy and organizational commitment and intention to quit in the U.S. sample. The relationship between general efficacy and organizational commitment was stronger in the U.S. than in the three combined countries sampled in Southeast Asia.

Over the years, considerable research, summarized in meta-analytic reviews, have clearly demonstrated that a significant relationship exists between various psychological capacities, such as Big Five personality traits (Barrick & Mount, 1991), self-evaluation traits (Judge & Bono, 2001), specific self-efficacy (Stajkovic & Luthans, 1998a), and desirable employee work attitudes and performance. But for a few exceptions (e.g., Born & Iwawaki, 1997; Markus & Kitayama, 1991), this relationship has not been tested to see if it generalizes across cultures. In addition, neither the complexity nor theoretical richness of the relationship has been tested for possible mediators. Thus, the two-fold purpose of this study was to begin to fill these gaps by first examining whether U.S. and Southeast Asian employees' job satisfaction mediated the relationship between general self-efficacy and work attitudes (organizational commitment and turnover intention). Secondly, we examined whether the relationship between general self-efficacy and employee attitudes/outcomes, in terms of organizational commitment and turnover intentions, differs between U.S. and Southeast Asian samples.

1. Theoretical foundation and hypotheses

The theoretical foundation for self-efficacy is closely associated with the extensive work of Albert Bandura (1997). His conception of self-efficacy represents a person's belief and confidence in his or her own capability to perform a specific task in a specific context. This self-efficacy influences a person's choice of activities, avoiding tasks judged too difficult or impossible, and embracing activities deemed manageable. Taken to the workplace, Stajkovic and Luthans (1998b: 66) defined self-efficacy as "an individual's conviction (or confidence) about his or her abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context". Bandura (1997) and others have demonstrated a significant positive relationship between this specific self-efficacy and various motivational, affective, and behavioral outcomes in clinical (e.g., Bandura, Adams, Hardy, & Howells, 1980; Locke, Frederick, Lee, & Bobko, 1984), educational (e.g., Lent, Brown, & Larkin, 1984; Schunk, 1995), and organizational settings (e.g., Bandura, 1997 and Bandura, 2000; Wood & Bandura, 1989). Stajkovic and Luthans (1998a) in a meta-analysis of 114 studies found a strong (.38) relationship between specific self-efficacy and work-related performance outcomes.

Theory-building and research on self-efficacy has been primarily contextually specific. Some organizational behavior researchers, however, have conceptualized and have provided research for a generalized sense of self-efficacy (Eden & Zuk, 1995; Judge & Bono, 2001; Judge, Erez, Bono, & Thoresen, 2003; Sherer et al., 1982). An argument for general self-efficacy is based on an individual's past experience with success or failure that results in a general set of expectations that will affect his or her expectations of success across a broad array of new and specific challenges/situations.

Eden and Zuk (1995: 629) defined general efficacy as "a generalized trait consisting of one's overall estimate of one's ability to effect requisite performances in achievement situations". For example, Sherer et al. (1982) indicated that individuals with historical and continuous successes in various situations are more likely to have a positive general self-efficacy in a greater variety of situations than those people with less successful experiences. General self-efficacy represents a global sense of confidence in one's coping ability across a wide range of demanding or difficult situations and reflects a broad and stable confidence in dealing effectively with rather stressful situations (Judge & Bono, 2001).

There are only a few studies that have examined the influence of general self-efficacy on employee work attitudes (e.g., Judge et al., 2003). In particular, Judge and Bono (2001) indicated that general efficacy, a person's belief he/she can conduct a task across different situations and contexts, is a major contributor to a positive core evaluation trait. General self-efficacy influences a person's choice of action, level of effort, perseverance and resilience in the face of difficulties and obstacles, adversity, failures and the characteristics of individual thoughts, which could be self-hindering or self-aiding (Judge et al., 2003; Wood & Bandura, 1989).

Sherer et al. (1982) indicated that general self-efficacy is made up of three components—initiative, effort and persistence. These components help determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will be in the face of adverse situations. Although Bandura (1997: 42) argues the prevailing conceptual view that an “efficacy belief is not a de-contextualized trait”, there is nevertheless increasing evidence of a strong positive relationship between specific self-efficacy and the more trait-like general efficacy (Judge et al., 2003; Leganger, Kraft, & Roysamb, 2000; Wang, 2000).

1.1. Impact of general self-efficacy on employee attitudes

General self-efficacy (Eden & Zuk, 1995; Judge & Bono, 2001) has been shown to have a positive relationship with work-related performance. For example, in a meta-analysis, Judge and Bono (2001) found a .23 relationship between general self-efficacy and job performance. General efficacy is also expected to be related to job satisfaction and turnover because of the significant positive relationship reported between job satisfaction and performance (Harter, Schmidt, & Hayes, 2002; Judge, Thoresen, Bono, & Patton, 2001). For example, in a meta-analysis of 312 samples, Judge et al. (2001) found the mean true correlation to be .30.

Judge and Bono (2001) and Herold (2000) have argued that general self-efficacy would affect job satisfaction through its association with practical success on the job. Individuals with high self-efficacy deal more effectively with difficulties and persist in the face of failure and obstacles (Gist & Mitchell, 1992). Moreover, such individuals are more likely to attain valued outcomes through persistence and thus derive intrinsic satisfaction from their jobs. It then follows that those with higher general self-efficacy are more likely to be satisfied with their job. This was shown

in the Judge and Bono (2001) meta-analysis that reported a .45 relationship between generalized self-efficacy and job satisfaction. Other studies have shown that efficacy is positively related to organizational commitment (Werbel, Landau, & DeCarlo, 1996) and overcoming burnout (Cordes & Dougherty, 1993).

1.2. Mediating role of job satisfaction

A major purpose of this study is to examine whether job satisfaction mediates the relationship between employees' general self-efficacy and their work attitudes across cultures. This research question recognizes the theoretical complexity and richness of the relationship between general-efficacy and employee attitudes. We argue that people with higher general self-efficacy are more likely to be satisfied with their job because they understand their job is making a significant and meaningful contribution to their organization and to their own success. Therefore, those with high efficacy and job satisfaction are more likely to be committed to the organization and have a lower intention to turnover.

Considerable theory and research strongly supports a negative relationship between job satisfaction and turnover intentions (Cote & Morgan, 2002). In general, employees with high job satisfaction are more likely to enjoy their current position and stay in the same organization. On the other hand, those with low job satisfaction are more likely to search for opportunities to leave their present organization. We would expect to find a negative relationship between an employee's level of job satisfaction and his/her intention to quit.

Based on the above background and shown in our proposed conceptual model in Fig. 1, the following hypotheses were developed for this study:

Hypothesis 1.

The positive relationship between general self-efficacy and organizational commitment is mediated by job satisfaction.

Hypothesis 2.

The negative relationship between general self-efficacy and turnover intention is mediated by job satisfaction.

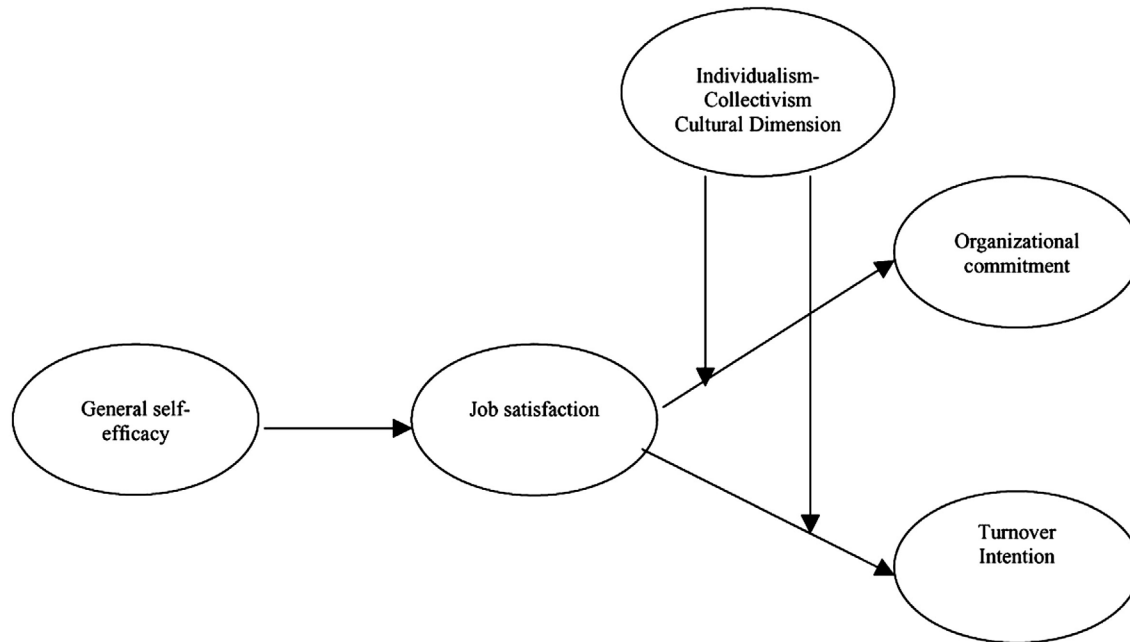


Fig. 1. General self-efficacy and work attitudes: mediating role of job satisfaction and moderating role of the individualism-collectivism cultural dimension.

1.3. Moderating role of the cultural dimension of individualism/collectivism

The cultural dimension of individualism/collectivism is recognized to be a major dimension to differentiate between East and West (Hofstede, 1980, Hofstede, 2001 and Hofstede, 2003). There is considerable support that collectivism/individualism is an effective way to analyze cultures. It has been found to be a coherent, integrated, and empirically testable dimension of cultures (Chiu & Kosinski, 1999). Hofstede, 1980, Hofstede, 2001 and Hofstede, 2003 argued that individualistic societies are characterized by person-centered conscientiousness, autonomy and initiative. He found the United States to be ranked highest on individualism, whereas Southeast Asian countries such as Indonesia, Malaysia, and Thailand have been found to be low on individualism and therefore high on group-centered collectivism (Hofstede, 1980, Hofstede, 2001 and Hofstede, 2003).

Chan, Gelfand, Triandis, and Tzeng (1996) pointed out that, in collectivist societies, especially Southeast Asia, individuals adhere to basic Confucianism and believe common interests and social harmony are more important than individual interests and enjoyment. At the individual level,

people in the collective societies are more socio-centric and have an interdependent view of the self (Markus & Kitayama, 1991). It is suggested that collectivists are more inclined to respond to situations and restraint of their own intentions for the greater welfare of the group.

Individualistic societies, on the other hand, are egocentric, autonomous, separate, self-contained and independent (Markus & Kitayama, 1991). Bond (1991) also posited that people in individualistic societies emphasize the positive, exciting, and fulfilling aspects of life. They hold on to notions that match their personal beliefs and values at work. Trandis et al. (1986) pointed out that individualistic cultures are more likely to consider themselves as independent members of a group. Therefore, it is expected that the individual difference construct of self-efficacy would play a more important role in determining individuals' work attitudes, such as organizational commitment and turnover intention. More specifically, it would seem to follow that the impact of general self-efficacy on organizational commitment and turnover intention is stronger in individualistic societies than in collectivistic societies. This is because people in collectivistic societies are more likely to be influenced by group values and beliefs while people in individualistic cultures tend to make decisions based more on their own thinking and mindsets.

Based on the above background, the following hypotheses were developed for the study.

Hypothesis 3.

The positive relationship between general self-efficacy and organizational commitment is stronger among more individualistic U.S. employees than among more collectivist Southeast Asian employees.

Hypothesis 4.

The negative relationship between general self-efficacy and turnover intention is stronger among more individualistic U.S. employees than among more collectivist Southeast Asian employees.

2. Methods

The sample for this study was drawn from a wide variety of organizations in the U.S. and Southeast Asia. Among the 888 respondents, 753 were from U.S., and 67 from Indonesia, 17 from Malaysia, and 51 from Thailand. Although there are obviously many cultural differences among these

Southeast Asian countries, using the Hofstede, 1980 and Hofstede, 2001, Trompenaars (1994), and Ronen and Shenkar (1985) cultural guidelines on the individualism-collectivism dimension for clustering countries, we combined respondents from Indonesia, Malaysia, and Thailand into one Southeast Asian sample. For example, on Hofstede's (2001, p. 215) individualism index, for 50 countries Malaysia ranked 36th, Thailand tied for 39-41, and Indonesia tied for 47-48.

Besides this similarity on the individualism-collectivism cultural dimension, we also conducted one-way ANOVA analysis and found that there was no statistical difference in the general self-efficacy among the respondents from these three Southeast Asian countries. Furthermore, we did not find any significant difference in industry type, years of education, and gender among these three Asian countries. This analysis provides support for our aggregating the data from these three Southeastern Asian countries. In terms of handling missing data, we used the mean substitution method. This method was used because the total number of missing cases was fewer than 5% and the listwise-deletion method has been shown to generate biased results (Noh, Kwak, & Han, 2004).

For those from the U.S., as to the type of ownership, 47.2% came from private firms and 52.8% were from public firms. The U.S. demographic profile indicated that 35.4% were managers, 42.5% were female, and 70.2% had a college degree. For those from Southeast Asia, as to the type of ownership, 45.4% were from private firms and 54.6% were from public organizations. The demographic profile for the Southeast Asian respondents indicated that 32.4% were managers, 37.42% were female, and 75.2% had a college degree. In other words, the demographics between the U.S. sample and the Southeast Asian sample were similar.

2.1. Measures

To minimize the language and cultural differences on the widely used standardized questionnaires as much as possible, Earley's (1994) guidelines for re-translation/back translation were used. For each of the Southeast Asians sampled, a bilingual native speaker from each country (Indonesia, Malaysia, and Thailand) translated the English questionnaires into their language. Then this translated questionnaire was re-translated back to English by another bilingual expert. The original and the re-translated versions of the general self-efficacy, job satisfaction, turnover intention, and organizational commitment questionnaires were then carefully compared and any discrepancies were reconciled.

2.1.1. General self-efficacy

The general self-efficacy scale was drawn from Sherer et al. (1982). There are 17 items in this scale. Respondents used a 14-point Likert scale (1 “strongly disagree” to 14 “strongly agree”) to indicate their level of agreement with these items. Sample items include: “When I make plans, I am certain I can make them work” and “If I can not do a job the first time, I keep trying until I can”. Item ratings were averaged to form overall scores for individuals’ general self-efficacy. The Cronbach alpha was .83 for the U.S. sample and .78 for the Southeast Asian sample.

2.1.2. Job satisfaction

The job satisfaction scale was drawn from Hackman and Oldham (1980). Three items were used. Respondents used a 7-point Likert scale (1 “strongly disagree” to 7 “strongly agree”) to indicate their level of agreement with these items. Items included: “Generally speaking, I am very satisfied with my job”, “I am generally satisfied with the feeling of worthwhile accomplishment I get from doing this job”, and “I am generally satisfied with the kind of work I do in this job”. We averaged item ratings to form overall scores for the respondent’s job satisfaction. The Cronbach alpha was .90 for the U.S. sample and .86 for the Southeast Asian sample.

2.1.3. Turnover intention

The turnover intention scale was drawn from Hom, Griffeth, and Sellaro (1984). Three items were used. Respondents used a 7-point Likert scale (1 “strongly disagree” to 7 “strongly agree”) to indicate their level of agreement. Items included: “I am planning to search for a new job outside this organization during the next 12 months”, “I often think about quitting this job”, and “If I have my own way, I will be working for some other organization one year from now”. Item ratings were averaged to form overall scores for the respondent’s turnover intention. The Cronbach alpha was .79 for the U.S. sample and .95 for the Southeast Asian sample.

2.1.4. Organizational commitment

Level of organizational commitment was measured by Mowday, Porter, and Steers’ (1982) 15-item scale. This scale measures three basic components of organizational commitment: identification, involvement, and loyalty. Sample items included: “I am quite proud to be able to tell people that I am part of this organization”; “I find that my values and the organization’s values are very similar”; and “I really care about the fate of this organization”. Ratings were completed on a 5-point Likert scale. The

ratings of all 15 items were averaged to form a single index of organizational commitment. The Cronbach alpha was .89 for the U.S. sample and .81 for the Southeast Asian sample.

2.2. Control variables

Six control variables were used to account for a variety of demographical and contextual factors that might affect the relationship between the independent variable (general self-efficacy) and the dependent work attitude variables (job satisfaction, organizational commitment, and turnover intentions). They were: (1) months of work experience, (2) months of experience in the present organization, (3) months of experience in the current position, (4) age, (5) gender, and (6) years of education.

2.3. Common source/rater effects

To analyze the potential of a common source/rater effect, we pursued two strategies. First, we used Harman's one factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) to examine the extent to which a common or single method factor existed that would account for the variance in our findings. The premise of this strategy is that either (a) a single factor will emerge from exploratory analysis or (b) one general factor will explain most of the variance among all scales (Podsakoff et al., 2003). We did an exploratory factor analysis by entering all the scales used in this study and nine factors emerged. The general factor explained 22.56% of the total variance, which does not provide support for a common method/source bias explanation for the results of this study.

For the second strategy, as suggested by Podsakoff et al. (2003), we deliberately included in our survey a scale that was not compatible with the theoretical framework of our study and thus not expected to relate to the outcomes. This 16-item outside scale was tolerance for ambiguity (Budner, 1962) with sample questions such as: "What we are used to is always preferable to what is unfamiliar?" and "Many of our most important decisions are based on insufficient information". The Cronbach alpha was .71 for the U.S. sample and .70 for the Southeast Asian sample.

We included the tolerance for ambiguity scale in order to test for discriminant validity in a manner similar to the method proposed by Lindell and Whitney (2001). Our study focused on four core constructs: general self-efficacy, job satisfaction, organizational commitment, and turnover

intention. A fifth construct, outside our theoretical framework, was tolerance for ambiguity. The data from this scale was regressed on the various independent, mediating and dependent variables as shown in Fig. 1. If there was evidence of common method and source/rater bias effects, the coefficients involving tolerance for ambiguity as well as those involving general self-efficacy should be similarly affected (Podsakoff et al., 2003).

We did find the coefficients for general self-efficacy and its relationship to the dependent outcome variables were significant, but none of the corresponding coefficients when using the outside scale of tolerance for ambiguity were significantly related to the various outcome measures. Specifically, the coefficients between tolerance for ambiguity and organizational commitment were: U.S.: $\beta = .03, p > .10$; Southeast Asia: $\beta = -.14, p > .05$; turnover intention: U.S.: $\beta = .01, p > .10$; Southeast Asia: $\beta = -.12, p > .05$; and job satisfaction: U.S.: $\beta = .06, p > .05$; Southeast Asia: $\beta = -.14, p > .05$. Therefore, the results of both of these strategies indicate that common method and source/rater effects do not seem to have an impact on the pattern of results reported in this study.

3. Results

Table 1 provides descriptive statistics and correlations for all study variables. General self-efficacy was significantly and positively related to job satisfaction in the U.S. sample ($\beta = .32, p < .01$), but was not significantly related in the Southeast Asia sample ($\beta = .15, p < .10$). General self-efficacy was positively related to organizational commitment (U.S.: $\beta = .24, p < .01$; Southeast Asia: $\beta = .26, p < .01$), and negatively related to turnover intentions (U.S.: $\beta = -.17; p < .01$; Southeast Asia: $\beta = -.26, p < .01$). Of the control variables, general self-efficacy had no relationship with any of the demographic or contextual variables.

We used hierarchical regression models to examine the hypothesized direct effects and generated a series of successive models to determine the added value of each step. A separate series of regression models was generated to examine the relationship of general self-efficacy with job satisfaction and turnover intention.

Before interpreting the full-sample equation, we examined the data for any possible violations of assumptions for conducting ordinary least squares (OLS) regression. The result indicated that all of the assumptions, i.e., normality of distribution and homogeneity of variance, were not violated. Control variables, including months of work experience, months of

Table 1. Descriptive statistics and correlations for study variables (U.S. Sample, $N = 753$; Southeast Asian, $N = 135$)

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Months of total working experience	131.61 (124.43)	92.35 (45.63)	1.00	.56**	.11	.83**	.16	-.05	-.02	.09	-.05	.04
2. Months of experience in this organization	57.99 (67.98)	56.10 (41.99)	.55**	1.00	.05	.47**	.07	.17	.01	.01	-.01	.01
3. Months of experience in present position	32.65 (30.23)	36.25 (16.46)	.41**	.64**	1.00	.14	.19*	-.12	.06	.24**	.05	-.11
4. Age	34.33 (34.83)	8.47 (4.59)	.82**	.50**	.37**	1.00	.18*	.09	-.13	.10	-.04	-.04
5. Gender	.57 (.63)	.49 (.49)	.07**	.04	.01	.10**	1.00	.02	.09	.41**	.05	.09
6. Years of education	16.38 (17.05)	1.80 (1.36)	-.09**	-.04	-.07	-.05	.20**	1.00	-.24**	-.16	.13	-.04
7. General self-efficacy	10.54 (10.47)	1.49 (1.46)	.04	.04	.03	.02	.05	.02	1.00	.15	-.26**	.26**
8. Job satisfaction	5.06 (5.30)	1.23 (1.02)	.09**	.06	.06	.11*	.03	.01	.32**	1.00	-.13	.33**
9. Turnover intention	3.14 (2.41)	1.87 (1.58)	-.14**	-.07*	-.08*	-.15**	-.03	.08*	-.17**	-.58**	1.00	-.41**
10. Organizational commitment	4.28 (4.73)	.97 (.73)	.07*	.09*	.06	.06	.02	.01	.24**	.65**	-.60**	1.00

Values in parentheses of means and S.D. are the Southeast Asian sample. Correlations above diagonal are the Southeast Asian sample.

* $p < .05$, ** $p < .01$

experience in the present organization, months of experience in the current position, age, gender, and years of education, were controlled for in the equation.

To test for mediation, we used the following four-step procedure outlined by Baron and Kenny (1986): (1) we tested whether there was a significant, positive relationship between general self-efficacy and job satisfaction, (2) general self-efficacy and organizational commitment, and turnover intention, and (3) job satisfaction and organizational commitment, and turnover intention. We then proceeded to step (4) by controlling for job satisfaction to determine whether the relationships between general self-efficacy and the work-related attitudes of organizational commitment and turnover intention were reduced to non-significance or became significantly smaller. When the relationships between general self-efficacy and organizational commitment, and with turnover intention, become insignificant or less significant, there is evidence for full or partial mediation (Baron & Kenny, 1986). Results of these analyses are presented in Table 2 for both the U.S. sample and the Southeast Asian sample.

Table 2. Results of hierarchical regression analyses (U.S. Sample, $N = 753$; Southeast Asia, $N = 135$)

	Model							
	1		2		3		4	
	Job satisfaction	Commitment	Turnover intention	Commitment	Turnover intention	Commitment	Turnover intention	
Control variables								
Age	.11 (.05)	.01 (-.15)	-.11 (-.14)	-.06 (-.24)	-.05 (-.06)	-.06 (-.18)	-.05 (-.13)	
Gender	.01 (.38**)	-.01 (.09)	-.03 (.07)	.01 (-.03)	-.03 (.11)	-.01 (-.05)	-.03 (-.13)	
Education (years)	.01 (-.15)	.01 (.04)	.08 (.09)	.01 (.04)	.08 (.12)	.01 (.08)	.08** (.07)	
Months of total work experience	-.02 (-.01)	.02 (.20)	-.04 (.04)	.03 (.24)	-.04 (.01)	.03 (.21)	-.05 (.04)	
Months of experience in this organization	-.02 (-.03)	.06 (-.05)	.03 (.02)	.07 (-.01)	.02 (-.01)	.07 (-.03)	.02 (.01)	
Months of experience in this position	.02 (.15)	.01 (-.14)	-.03 (.07)	-.01 (-.19**)	-.02 (.09)	-.01 (-.19**)	-.02 (.09)	
R^2	.01** (.17**)	.01** (.01**)	.02** (.01**)	.01** (.01**)	.03** (.02**)	.01** (.01*)	.03** (.02**)	
General self-efficacy	.32** (.09)	.24** (.26**)	-.15** (-.26**)			.03 (.22**)	.02 (-.25**)	
ΔR^2	.10** (.01**)	.05** (.05**)	.03** (.04**)					
Job satisfaction				.65** (.40*)	-.57** (-.18***)	.63** (.37**)	-.57** (-.15)	
General self-efficacy \times cultural dimension (1 = U.S., 0 = Asia)		.22**	-.15**					
ΔR^2				.40** (.10**)	.31** (.03**)	.40** (.15*)	.31** (.08**)	

Values in parentheses are the Southeast Asian sample.

* $p < .05$, ** $p < .01$, *** $p < .10$.

Controlling for work experience, tenure in one's present organization, experience in one's current position, age, gender, and years of education, we found that job satisfaction mediates the relationship between general self-efficacy and organizational commitment in the U.S. sample. Step 1 in Table 2 shows that general self-efficacy is significantly related to job satisfaction in the U.S. ($\beta = .32$, $p < .01$), but not in Southeast Asia ($\beta = .09$, $p > .05$). Model 2 shows that general self-efficacy is significantly related to organizational commitment (U.S.: $\beta = .24$, $p < .01$; Southeast Asia: $\beta = .26$, $p < .01$), and turnover intention (U.S.: $\beta = -.15$, $p < .01$; Southeast Asia: $\beta = -.26$, $p < .01$). Model 3 shows that job satisfaction is significantly related to organizational commitment (U.S.: $\beta = .65$, $p < .01$; Southeast Asia: $\beta = .40$; $p < .05$), and negatively with turnover intention in U.S. ($\beta = -.57$, $p < .01$), but was not significantly related in the Southeast Asia sample ($\beta = -.18$, $p < .10$). Since general self-efficacy was not significantly related to job satisfaction in the Southeast Asian samples, neither hypotheses 1 or 2 was supported for the Southeast Asian sample.

Support for the mediation hypothesis is present if the initially significant relationships shown in Step 2 between general self-efficacy and organizational commitment, and with turnover intention, disappeared or decreased after adding job satisfaction into the regression equation. Indeed, as can be seen in Step 4 of Table 2, after job satisfaction is added to the regression model, most of the initially significant relationships between general self-efficacy and organizational commitment (U.S.: $\beta = .03$, $p > .05$), and with turnover intention (U.S.: $\beta = .02$, $p > .05$), are no longer significant or decreased in significance. These results indicate that, with the U.S. sample, job satisfaction mediates the relationship between general self-efficacy and all of the various work attitudes. Thus, both hypotheses 1 and 2 were supported for the U.S. sample.

In order to examine the moderating role of the culture over the relationships between general self-efficacy and organizational commitment and with turnover intention, we conducted separate analyses by creating an interaction term between general self-efficacy and cultural grouping based on individualism-collectivism (i.e., U.S. and Southeast Asian). Results in Table 2 show that this culture moderated the relationship between general self-efficacy and organizational commitment ($\beta = .22$, $p < .01$), providing support for Hypothesis 3.

In summary, our results provided partial support for Hypothesis 1 in that job satisfaction mediates the positive relationship between general self-efficacy and organizational commitment in the U.S. sample. Hypothesis 2, that job satisfaction mediates the negative relationship between general self-efficacy and turnover intention was also supported in the U.S. sample. Hypothesis 3, which states that the positive relationship between general self-efficacy and organizational commitment is stronger among U.S. employees than among a sample of employees from three Southeast Asian countries, was supported. Hypothesis 4, the negative relationship between general self-efficacy and turnover intention is stronger for U.S. employees than for the Southeast Asian employees, was not supported. Interestingly, contrary to our hypothesis, we found that general self-efficacy has a more negative effect on turnover intention in Southeast Asia than in the U.S.

4. Discussion

Results of this study were consistent with previous U.S.-based research that has shown employees with higher levels of general self-efficacy have more positive work-related attitudes (Cote & Morgan, 2002; Judge & Bono, 2001; Judge et al., 2003 and Sherer et al., 1982). Besides replicating earlier U.S.-based findings, the current study makes an important extension to selected Southeast Asian countries. With both U.S. and a sample of employees from three Southeast Asian countries, we found the higher their general self-efficacy, the greater their organizational commitment, as well as the lower their intention to turnover. We also found that general self-efficacy was positively related to job satisfaction in the Asian sample, however this relationship was not significant.

In this study, we have also begun to explore the theoretical complexity and richness of how efficacy may affect work-related attitudes. We found U.S. employees' general self-efficacy may be mediated in its relationship with work-related attitudes through job satisfaction. Specifically, we found that general self-efficacy leads to job satisfaction, and that job satisfaction leads to commitment to the organization for employees in the U.S. We also found that general self-efficacy was significantly related to work commitment and negatively related to turnover intention in the selected Southeast Asian countries. These results suggest that U.S. and Southeast Asian countries employee differences in organizational commitment and employees' intentions to turnover may be explained at least in part by the differences in how satisfied employees are with respect to their job and work environment.

A possible explanation for the Southeast Asian employees' job satisfaction not mediating the relationship between efficacy and turnover intention may be due to their recent history of economic uncertainty (i.e., the late 1990s financial crisis in Southeast Asia) and the collectivist cultural value that promote having a more substantial reason for quitting their jobs than simply being dissatisfied with their work. Another possible explanation is that Southeast Asian companies in general tend to have a relatively more permanent employment relationship (i.e., carry-over from life-time employment days) with their employees, so Southeast Asian employees may be less likely to consider quitting as an option. Moreover, it may still be more difficult to switch from company to company in Southeast Asian cultures due to the importance of perceived loyalty in the organization and employee relationship. However, we did find the Southeast

Asian employees (and also those in the U.S.) who were more satisfied with their job are more likely to have higher commitment to their organization and still have a lower intention to leave their organization. Although this latter finding is consistent with relevant prior research (e.g., Cote & Morgan, 2002), this current study also indicated the importance job satisfaction seems to have across countries with a different cultural dimension of individualism (U.S.) and collectivism (Southeast Asia).

As to the moderating role of individualism-collectivism, we found that general self-efficacy may have a stronger effect on organizational commitment in the U.S. than in Southeast Asian countries. This provides some initial empirical support to cross-cultural theories (Markus & Kitayama, 1991; Trandis et al., 1986) using the individualism-collectivism construct. These theories suggest that people in individualistic societies are ego-centric, autonomous, self-contained, and independent and that such individual level factors play a more important role in influencing employees' work attitudes in Western cultures such as the U.S. than in Southeast Asian cultures.

However, contrary to our hypothesis, we did not find that general efficacy has a significantly different relationship with turnover intention between the U.S. and our Southeast Asian samples. One possible explanation for this non-significant difference is that general self-efficacy has such an important role in deciding an individual's intention to leave the organization. In other words, it may be that these sampled Southeast Asian employees' general self-efficacy will promote their staying in their organization since they are more likely to think that they will be successful in their current organization. Furthermore, it is also possible that low organizational commitment does not necessarily mean high turnover intention. Individuals with low commitment may need to consider whether they have the confidence to find a new job before they have the intention to leave and the opportunity available to move to a different organization.

4.1. Implications for theory and practice

The study has at least two important implications for the theory-building of general self-efficacy. First, the study empirically tested the potential mediation of job satisfaction and second, the study contributed at least some initial evidence of cross-cultural generalization. The results indicated that a personality-like "self-construct", U.S. and Southeast Asian employees' general self-efficacy, may be a key psychological strength for

increasing levels of organizational commitment and reducing intention to leave. Testing our model in two distinct (U.S. and Southeast Asian) cultural contexts (i.e., individualism versus collectivism) permits beginning cross-validation, and tests of generalizability of the theoretical links. For the future, these preliminary results may help contribute to theoretical understanding of the context specificity versus generalizability of the impact of efficacy on work attitudes. Also, the study provides additional evidence to support and expand Judge et al., 1997 and Judge et al., 2003 theory of core self-evaluation in that it examines the relationships of one's general sense of self-efficacy to organizational commitment and turnover intention across cultures.

Finally, the current study may help complement and augment other lines of theory development besides general self-efficacy and job satisfaction. For example, since efficacy judgments constitute a self-regulatory concept inherent in motivational processes and resulting performance (Bandura, 1997; Judge & Bono, 2001; Judge et al., 2003; Stajkovic & Luthans, 1998a), the notion of general self-efficacy may also contribute to understanding the psychological strengths that result in higher levels of organizational commitment and employee retention.

Besides theory-building, our study results also have several implications for practice. The positive relationship found between general self-efficacy and organizational commitment and the negative relationship with intention to quit suggests that managers in general, and human resource professionals in particular, may need to give greater attention to the development of general self-efficacy in their employees. For example, organizations might be able to test for higher levels of general self-efficacy prior to selecting employees, as well as managers developing it in their associates over time (Bandura, 2000, Luthans, 2002 and Luthans and Youssef, 2004). Specific programs (e.g., successful experience, modeling, coaching and positive feedback) could be designed to help employees enhance their general efficacy (Bandura, 2000, Luthans, 2002 and Luthans and Youssef, 2004; Stajkovic & Luthans, 1998b). The main goal of such efficacy development programs would not necessarily be to train new skills, but to enhance employees' beliefs and confidence that they can do well with their current skills, knowledge and strategies (Bandura, 1997). A secondary benefit of working to enhance general efficacy may involve increasing employees' overall organizational citizenship behavior (Organ & Lingl, 1995), as they feel more confident in broadly contributing to the overall mission of their organization.

4.2. Limitations and suggestions for future research

A major limitation of the current study involved the collection of survey data from a single source using a common method. The similarity of methods used to measure both independent and dependent variables may have inflated the observed relationships between general self-efficacy and the work attitude variables. In our study, we took the perspective of method as being a combination of respondent (or rater or observer), instrument, time, and place (see Avolio, Yammarino, & Bass, 1991 for a similar view of “method”). If two measures share respondent, instrument, time, and place, we could expect these measures to be positively correlated with each other in the absence of a substantive relationship.

Our analysis concerning both the one factor and conceptually unrelated construct tests for single source effects and bias reported in our methods section indicated that this potential limitation may not have had a significant impact on our findings. Furthermore, the fact that our independent variable (general self-efficacy) was substantially different from our dependent outcome variables (e.g., turnover intention) should also mitigate some of the inflation effects associated with single source bias/effects. Nevertheless, it would be useful if future research could examine the relationships between the general self-efficacy and work/psychological outcomes with data collected over time, especially using different methods.

A second limitation related to the use of a cross-sectional design for data collection was whether general self-efficacy indeed has a direct impact on job satisfaction, organizational commitment, and intention to turnover, as well as an indirect effect through job satisfaction. Because this study design does not allow causal conclusions, it is likely that individuals that are satisfied with their jobs may also have higher levels of general self-efficacy, potentially contributing to the mediational effects reported in our results. Moreover, more satisfied employees with correspondingly higher job performance may also report higher levels of general self-efficacy due to establishing mastery experience and receiving positive feedback and reinforcement.

Still another limitation is that we did not have large sample sizes from Southeast Asia countries and thus had to group them into one sample by using the cultural criterion of individualism-collectivism. There are many other cultural dimensions, but we are limited in this study to only individualism-collectivism and not a more complete cultural comparison study. However, we were able to confidently group these three Southeast Asian

countries according to their individualism-collectivism cultural dimension and this dimension is conceptually most relevant to general self-efficacy. This efficacy was also found to be statistically similar in our three Southeast Asian countries in the study.

To have a better understanding of the various relationships among general self-efficacy, job satisfaction, organizational commitment, and turnover intention, we recommend that future research focus on the following: (1) examine these relationships over time and/or by first intervening to enhance general self-efficacy and then measuring its effects over time; (2) incorporate additional cultural dimensions beyond individual/collective variables, to get a better understanding of how broader cultures may moderate the relationships observed in the current study; and (3) test other potential mediators such as task complexity or emerging positive organizational behavior states such as hope or resiliency (Luthans, 2002 and Luthans and Youssef, 2004).

5. Conclusion

The primary goal of this study was to examine whether general self-efficacy was related to employees' work attitudes across countries with a different cultural dimension of individualism-collectivism. The second goal was to better understand the richness of the impact of efficacy by testing mediators (job satisfaction) and moderators (U.S. and selected Southeast Asian countries). Other antecedents now need to be included in future research to determine how variables such as leadership affect general self-efficacy and how efficacy in turn impacts outcome variables such as commitment, turnover and especially work performance. Other cultural dimensions and other countries need to be studied as well. Future research also might explore whether the antecedents to general self-efficacy are the same as those of specific self-efficacy.

In conclusion, this exploratory study has not only provided some additional support for the positive role that general (as opposed to specific) efficacy may have for desirable workplace attitudes/outcomes, but also that some of these effects may hold across different cultures. The study has also contributed to the theoretical development that general efficacy may be mediated by constructs such as job satisfaction in its relation to workplace attitudes, at least in the U.S.

Acknowledgments — We would like to acknowledge the constructive suggestions made by John Slocum on previous drafts of this manuscript. We would also like to thank Alex Stajkovic for his help in gathering the U.S. sample data.

References

- B.J. Avolio, F.J. Yammarino, B.M. Bass, Identifying common methods variance with data collected from a single source: An unresolved sticky issue, *Journal of Management*, 17 (1991), pp. 571–588
- A. Bandura, *Self-efficacy: The exercise of control*, Freeman, New York (1997)
- A. Bandura, Cultivate self-efficacy for personal and organizational effectiveness, E.A. Locke (Ed.), *Handbook of principles of organizational behavior*, Blackwell, Oxford, UK (2000), pp. 120–136
- A. Bandura, N.E. Adams, A.B. Hardy, G.H. Howells, Test of the generality of self-efficacy theory; *Cognitive Therapy and Research*, 4 (1980), pp. 39–66
- R.M. Baron, D.A. Kenny, The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations; *Journal of Personality and Social Psychology*, 51 (1986), pp. 1173–1182
- M.R. Barrick, M.K. Mount, The “Big Five” personality dimensions and job performance: A meta-analysis, *Personnel Psychology*, 44 (1991), pp. 1–26
- M.H. Bond, *Beyond the Chinese face: Insights from psychology*, Oxford University Press, Hong Kong (1991)
- A. Born, S. Iwawaki, The assessment of optimistic self-beliefs: Comparison of the Chinese, Indonesian, Japanese, and Korean versions of the general self-efficacy scale, *Psychologia: An International Journal of Psychology in the Orient*, 40 (1997), pp. 1–13
- S. Budner, Intolerance of ambiguity as a personality variable, *Journal of Personality*, 30 (1962), pp. 29–50
- D.K.S. Chan, M.J. Gelfand, H.C. Triandis, O. Tzeng, Tightness-looseness revisited: Some preliminary analyses in Japan and the United States, *International Journal of Psychology*, 31 (1996), pp. 1–12
- R.K. Chiu, F.A. Kosinski, The role of affective dispositions in job satisfaction and work strain: Comparing collectivist and individualistic societies, *International Journal of Psychology*, 34 (1999), pp. 19–28
- C. Cordes, T.W. Dougherty, A review and an integration of research on job burnout, *Academy of Management Review*, 18 (1993), pp. 621–650
- S. Cote, L. Morgan, A longitudinal analysis of the association between emotional regulation, job satisfaction, and intention to quit, *Journal of Organizational Behavior*, 23 (2002), pp. 947–962
- P.C. Earley, Self or group? Cultural effects of training on self-efficacy and performance, *Administrative Science Quarterly*, 39 (1994), pp. 89–117
- D. Eden, Y. Zuk, Seasickness as a self-fulfilling prophecy: Raising self-efficacy to boost performance at sea, *Journal of Applied Psychology*, 80 (1995), pp. 628–635
- M.E. Gist, T.R. Mitchell, Self-efficacy: A theoretical analysis of its determinants and malleability, *Academy of Management Review*, 17 (1992), pp. 183–211

- J.R. Hackman, G.R. Oldham, *Work redesign*, Addison-Wesley, MA (1980)
- J.K. Harter, F.L. Schmidt, T.L. Hayes, Business unit level relationship between employee engagement and business outcomes: A meta-analysis, *Journal of Applied Psychology*, 87 (2002), pp. 268–280
- Herold, J. P. (2000). *Nurse's talk in relationship to their perceptions of work satisfaction and self-efficacy*. Unpublished dissertation. Colorado: University of Denver.
- G. Hofstede, *Culture's consequences: International differences in work-related values*, Sage Publications, London (1980)
- G.H. Hofstede, *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*, Sage Publications, Thousand Oaks, CA (2001)
- G. Hofstede, What is culture? A reply to Baskerville, *Accounting, Organizations & Society*, 28 (2003), pp. 811–814
- P.W. Hom, R.W. Griffeth, C.L. Sellaro, The validity of Mobley's 1977 model of employees turnover, *Organizational Behavior and Human Performance*, 34 (1984), pp. 144–174
- T.A. Judge, J.E. Bono, Relationship of core self-evaluations traits-self esteem, generalized self-efficacy, locus of control, and emotional stability-with job satisfaction and job performance: A meta-analysis, *Journal of Applied Psychology*, 86 (2001), pp. 80–92
- T.A. Judge, A. Erez, J. Bono, C.J. Thoresen, The core self-evaluations scale: Development of a measure, *Personnel Psychology*, 56 (2003), pp. 303–331
- T.A. Judge, E.A. Locke, C.C. Durham, The dispositional causes of job satisfaction: A core evaluations approach, *Research in Organizational Behavior*, 19 (1997), pp. 151–188
- T.A. Judge, C.J. Thoresen, J.E. Bono, G.K. Patton, The job satisfaction-job performance relationship, *Psychological Bulletin*, 127 (2001), pp. 376–407
- A. Leganger, P. Kraft, E. Roysamb, Perceived self-efficacy in health behavior research: Conceptualization, measurement and correlates, *Psychology and Health*, 15 (2000), pp. 51–69
- R.W. Lent, S.D. Brown, K.C. Larkin, Self-efficacy in the predictions of academic performance and perceived career options, *Journal of Counseling Psychology*, 33 (1984), pp. 265–269
- M.K. Lindell, D.J. Whitney, Accounting for common method variance in cross-sectional research designs, *Journal of Applied Psychology*, 86 (2001), pp. 114–121
- E.A. Locke, E. Frederick, C. Lee, P. Bobko, Effect of self-efficacy, goals, and task strategies on task performance, *Journal of Applied Psychology*, 69 (1984), pp. 241–251
- F. Luthans, The need for and meaning of positive organizational behavior, *Journal of Organizational Behavior*, 23 (2002), pp. 695–706
- F. Luthans, C.M. Youssef, Human, social, and now positive psychological capital: Investing in people for competitive advantage, *Organizational Dynamics*, 33 (2004), pp. 143–160
- H.R. Markus, S. Kitayama, Culture and self: Implications for cognition, emotion, and motivation, *Psychological Review*, 98 (1991), pp. 224–253
- R.T. Mowday, L.W. Porter, R.M. Steers, *Employee-organization linkages*, Academic Press, New York (1982)
- H. Noh, M. Kwak, I. Han, Improving the prediction performance of customer behavior through multiple imputation, *Intelligent Data Analysis*, 8 (2004), pp. 563–577

- D.W. Organ, A. Lingl, Personality, satisfaction, and organizational citizenship behavior, *Journal of Social Psychology*, 135 (1995), pp. 339-350
- P.M. Podsakoff, S.B. MacKenzie, J. Lee, N.P. Podsakoff, Common method biases in behavioral research: A critical review of the literature and recommended remedies, *Journal of Applied Psychology*, 88 (2003), pp. 879-903
- S. Ronen, O. Shenkar, Clustering countries on attitudinal dimensions, *Academy of Management Journal*, 28 (1985), pp. 435-454
- D.H. Schunk, Self-efficacy and education and instruction, J. Maddux (Ed.), *Self-efficacy, adaptation, and adjustment: Theory, research, and application*, Plenum Press, New York (1995), pp. 281-303
- M. Sherer, J.E. Maddux, B. Mercadante, S. Prentice-Dunn, B. Jacobs, R.W. Rodgers, The self-efficacy scale: Construction and validation, *Psychological Reports*, 51 (1982), pp. 663-671
- Stajkovic, A. D., & Luthans, F. (1998a). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124: 240-261.
- A.D. Stajkovic, F. Luthans, Going beyond traditional motivational and behavioral approaches, *Organizational Dynamics*, 26 (4) (1998), pp. 62-74
- H.C. Trandis, R. Bontempo, H. Betancourt, M. Bond, K. Leung, A. Brenes, *et al.*, The measurement of etic aspects of individualism and collectivism across cultures, *Australian Journal of Psychology*, 38 (1986), pp. 257-267
- F. Trompenaars, *Riding the waves of culture*, Irwin, New York (1994)
- C. Wang, Correlation among general self-efficacy, trait anxiety, state anxiety, and test anxiety, *Chinese Journal of Clinical Psychology*, 8 (2000), pp. 229-230
- J. Werbel, J. Landau, T.E. DeCarlo, The relationship of pre-entry variables to early employment organizational commitment, *Journal of Personal Selling and Sales Management*, 16 (1996), pp. 25-36
- R. Wood, A. Bandura, Social cognitive theory of organizational management, *Academy of Management Review*, 14 (1989), pp. 361-384