

# Assessment of Cultural Dimensions, Leadership Behaviors and Leadership Self-Efficacy: Examination of Multinational Corporations in Taiwan

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**Abstract.** This paper applied Structural Equation Modeling (SEM) to investigate the relationship among cultural dimensions, transformational leadership, and leadership self-efficacy for the managers in Taiwanese Multinational Corporations (MNCs). Data is collected from 197 managers or executives of MNCs in Taiwan. Cultural dimensions are tested via Hofstede's cultural dimension. Leadership behaviors are measured through Bass and Avolio's Multifactor Leadership Questionnaire. Leadership self-efficacy is measured through Jerusalem and Schwarzer's General Self-Efficacy Scale. The research results reveal that cultural dimensions have direct effect on leadership behaviors, and leadership behaviors have direct effect on leadership self-efficacy.

**Keywords:** Culture Dimension, Transactional Leadership, Transformational Leadership, Leadership Self-efficacy

## 1. Introduction

Culture has become a very important topic in international business studies (Adams & Graban, 2011). Schein (2004) notes that investigation of cultural issues assist in understanding what goes on in organizations, and how to run organizations. He states that leaders can utilize the effect of organizational culture to direct subordinates to the highest level of motivation for accomplishing organizational goals. Schein (2004) find that leadership behaviors are a part of the organizational culture. He states leadership issues encompass organizational culture, and leaders must be able to adapt to changeable situations. Leadership self-efficacy not only affects an individual's effort and persistence, but influences one's leadership activities. Leadership self-efficacy may bring the leadership structure of the leader to the desired style of leadership, performance standard, and organizational expectation.

## 2. Literature review

### 2.1. Hofstede's Cultural Diversity

Hofstede's (1980) model, the most widely cited, is developed in terms of variances in beliefs and values regarding work goals. This model initially sprang from research at IBM and was first published in 1980. Hofstede's model considers a four-dimensional framework of power distance, individualism, masculinity, and uncertainty avoidance. Later Hofstede and Bond (1988) add a fifth dimension, long-term orientation. The five culture dimensions are the following:

**Power Distance.** Power distance involves the extent of a society's tolerance for social hierarchy and power structures. Power distance is used to measure the equality or inequality among people in a society. Power and inequality are fundamental aspects of any society, and anybody with some international experience is aware that all societies are unequal, but some are more unequal than others (Hofstede, 1980). A high power distance culture indicates that inequalities of power and wealth have been allowed to grow within the society. Low power distance cultures emphasize less the differences between citizens' power and wealth.

**Individualism / Collectivism.** The individualist-collectivist dimension is used to measure the relationship between personal freedom and cohesive in-groups. The individualist dimension indicates that individuality and individual rights are paramount within the society. Individuals in this kind of society tend to form a larger number of looser relationships and have a great degree of freedom. The collectivist dimension reinforces extended families and collectives, where everyone takes responsibility for members of their group. Employees in this culture consider the organizational interests over their personal interests (Cullen & Parboteeah, 2005).

**Masculinity / Femininity.** Masculinity versus femininity refers to the distribution of roles between genders. The masculinity dimension describes the differences between masculine societies, where men are concerned with material success as well as the quality of life, and feminine societies, where men and women are equally concerned with the quality of life. A low-masculinity, or feminine, culture means the country has little discrimination and differentiation between genders. In this culture, males and females have equal social status. People in a feminine culture prefer short-term, job-oriented work in which rewards are based on job performance. Feminine culture emphasizes relationships in order to establish trust and friendship in the organizations.

**Uncertainty Avoidance.** Uncertainty avoidance measures the extent to which members of organizations feel threatened by ambiguity or uncertainty. This includes the values, norms, and beliefs regarding a tolerance for uncertainty. Members of high uncertainty avoidance cultures feel stress and anxiety when they face risks, uncertainty, or ambiguity. In this culture, members follow organizational norms, values, and beliefs. Leaders in high uncertainty cultures tend to give clear directions to subordinates in order to reduce ambiguity regarding job expectations. In contrast, a low uncertainty avoidance culture is less concerned about ambiguity and uncertainty and more tolerant of a variety of opinions (Cullen & Parboteeah, 2005).

**Long-term Orientation.** Long-term orientation measures the extent of the time orientation of a culture. This orientation describes the balance between long-term opportunity and short-term satisfaction. A high long-term orientation culture is found in a country that values long-term commitments and respects tradition. This culture supports a strong work ethic of working hard for future rewards. In contrast, a short-term orientation culture exists in countries that do not reinforce the concept of long-term, traditional orientation and values. In this kind of culture, change occurs frequently (Hofstede, 1980). Since the organizations in this culture focus on immediate rewards rather than long-term opportunities, they invest little in employee training (Cullen & Parboteeah, 2005).

## **2.2. Leadership Behaviors**

Crosby (1997, p. 2) said that, "Leadership is deliberately causing people-driven action in a planned fashion for the purpose of accomplishing the leader's agenda" (p.2). Rost (1993) defines Leadership as "a power and value laden relationship between leaders and followers who intend real changes that reflect their mutual purposes and goals" (p. 102). Leadership is an extension of the leader's beliefs. The important requirement of the leadership process is for leaders to remember the followers to pursue their mutual purposes and goals. A highly personal core competence is only from within the leader. In this research, both dimensions of leadership behaviors are investigated as the following styles: transactional leadership and transformational leadership.

**Transactional Leadership.** According to Burns (1982, p.19), "Transactional leadership occurs when one person takes the initiative in making contact with others for the purpose of an exchange of valued thing." Bass (1990) describes transactional is based on the assumptions that followers are motivated through rewards and punishments, and they obey their leaders' instructions. Transactional leadership found on bureaucratic authority and legitimacy.

**Transformational Leadership.** Transformational leadership based on the hypotheses that people follow a person with enthusiasm, vision and energy who inspires them and achieves great goals. Transformational leadership provides a generalization of thinking about leadership that emphasizes ideals, inspiration, innovations and individual concerns. Transformational leaders emphasize the value of the

organizations' membership whether they are voluntary or compulsory (Hoffman, Bynum, Piccolo & Sutton, 2011).

### **2.3. Leadership Self-Efficacy**

According to Bandura (1982), self-efficacy was proposed as “judgments of how well one can execute courses of action required to deal with prospective situations” (p. 122). Later, Bandura (1990) expanded the definition of self-efficacy as “beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over task demands” (p.316). Gist and Mitchell (1992) proposed three traits of leadership self-efficacy: (1) representing the judgments of perceived abilities to perform particular tasks with three assessments of following categories: assessment of task condition, assessment of experience attribution, and assessment of personal resources; (2) showing the tendencies of being dynamic and adjustable; (3) displaying the identity of mobilization.

### **2.4. Related Studies on Cultural Dimensions, Leadership Behavior and Leadership**

#### **Self-Efficacy**

Hodgetts (2003) states the leadership behavior influence the cultures among organization. Leadership behaviors and culture dimensions research has been discussed as of late as: House et. al. (2004) Leadership behavior effect a change of organizational culture in working environment. Ruvolo (2004) indicated that leader's posse's abilities and knowledge of organizational culture could achieve organizational goals. Hakimi (2010) indicates that supervisors had a higher level in influence on employee's perceptions of organizational culture than all other managers with the organization. Hodgetts (2003) states the leadership behavior influence the cultures among organization. He concludes leadership behavior and organizational culture is an important issue for the whole business world in the recently year. Therefore, this study predicts that:

#### **Hypothesis 1: Cultural dimensions have direct effect on transformational leadership behaviors.**

By examining the dimension of trusts, the relationship between cultural diversity and leadership efficacy becomes obvious. A leader with high power distance will be considered as less trusting and lead to lower reliability, which may lead to lower self-efficacy from others. Thus, leaders with high power distance are less trusting than those who have low power distance (Hofstede, 1980). Individualism is an essential antecedent element to the leadership self-efficacy. A person with the trait of individualism is willing to make less effort toward organization goal and group contribution. As the group goal is not reached, the trait of individualism will lead to the lower expectation of leadership self-efficacy. Uncertainty avoidance is another antecedent element to the leadership self-efficacy. An individual with higher uncertainty avoidance tends to work hard, which will lead to higher group achievement and have higher leadership self-efficacy in an organization. Therefore, this study predicts that:

#### **Hypothesis 2: Cultural dimensions have direct effect on leadership self-efficacy.**

In the self-concept motivation theory of leadership, Shamir, House, and Arthur (1993) proposed that transformational leadership behavior positively influenced leadership self-efficacy through emphasis of positive perception, expectation of higher performance, and confirmation of followers' capabilities to achieve the desired goals of organizations. Kirkpatrick and Locke (1996) indicated that leaders construct their followers' concepts of leadership self-efficacy by understanding followers' visions and providing sufficient feedback for their followers. In such a leadership activity, leaders are inclined to help followers believe that they can successfully overcome the oncoming challenges by transforming the self-concepts from leaders. Leaders can influence their followers' behaviors to engage in work-related tasks successfully by providing adequate reference and ideal points for their followers. Therefore, this study predicts that:

#### **Hypothesis 3: Transformational leadership behaviors have direct effect on leadership self-efficacy.**

## **3. Methodology**

Quantitative research method is applied in this study. The data for this research were collected from managers or executives of MNCs in Taiwan. The sample participants were randomly selected from

*Specialized Manager Name List in Taiwan*, published by China Credit Information Service Ltd. As shown in Figure 1, the conceptual framework is applied to investigate the relationship among cultural dimensions, transformational leadership, and leadership self-efficacy for the managers of MNCs in Taiwan.

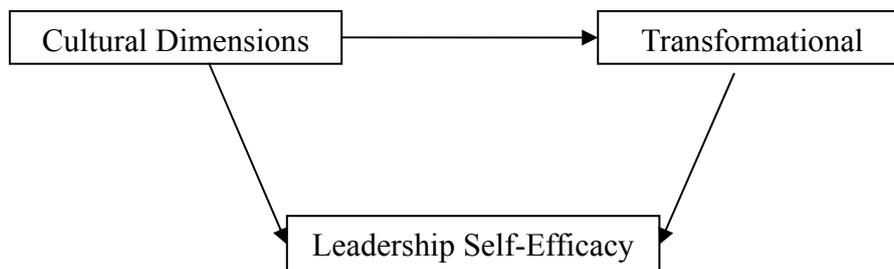


Figure 1. Research Model

The questionnaires were sent to randomly selected participants by email or mail. The questionnaires are written in both English and Traditional Chinese editions. A total of 197 valid questionnaires were collected. The frequency and percent for electronics industry, financial industry, food industry, tourism and other industries were 37 (18.8%), 31 (15.7%), 28 (14.2%), 16(8.1%), 85 (43.1%) respectively. The survey questionnaire contains four sections. The first section asks for demographic information. The second section consists of questions about culture dimensions. The third section asks about leadership behaviors, and the fourth section measures for self-efficacy.

Culture dimensions section was measured using Hofstede’s Values survey module 2008 survey module consisting of 27 items based on 5-point scales, which were tested for reliability using Cronbach’s alpha. The five culture dimensions showed good reliability as follows: Power distance index (4 items, Alpha=0.86), Individualism index (4 items, Alpha= 0.81), Masculinity index (4 items, Alpha=0.87), Uncertainty avoidance index (4 items, Alpha=0.82), Long-term orientation index (4 items, Alpha=0.78), indulgence index (4 items, Alpha=0.83), Monumentalism index (4 items, Alpha=0.71).

Leadership behaviors section was measured using part of Multifactor Leadership Questionnaire (MLQ) Form 6S containing 12 questions developed by Bass and Avolio (1992). This questionnaire was used to measures managers’ leadership on seven factors related to leadership behaviors. Cronbach’s alpha were used to test reliability as follow: Idealized influence (3 items , Alpha=0.71), Inspirational motivation(3 items , Alpha=0.78), Intellectual stimulation(3 items , Alpha=0.81), Individualized consideration(3 items , Alpha=0.831). All values above 0.7 were considered reliability.

Leadership self-efficacy was tested using General Self-Efficacy Scale (GSE) Chinese version designed by Matthias Jerusalem and Ralf Schwarzer & J. X. Zhang in 1994. This questionnaire was made on a 4-point scale and contains 10 items. Cronbahe’s Alpha value in this section was 0.87, suggesting good internal consistency reliability for the scale with this sample.

Structural equation modeling (SEM) was used to test the hypotheses and analyzed using Analysis of Moment Structure (AMOS), version 16. Three-step approach was utilized: First, the model fit for the construct was examined through confirmatory factor analysis (CFA) and path analysis with latent variables (PA-LV). Second, the significance of path was examined. Finally, by deleting the non-significance path and adding a set of path, the modified model is produced to improve the model fit.

The Goodness-of-Fit (GOF) induces was be employed to examine the overall fitness of the SEM. In this study, five most frequently used GOF statistics induces will be applied as the following items: (1) Normal Chi-Square Index (NCI), expressed as  $\chi^2/df$ , the ratio of  $\chi^2$  to degrees-of-freedom, (2) Root Mean Residual (RMR),(3) Root Mean Square Error of Approximation (RMSEA), (4) Goodness-of-Fit index (GFI), and (5) Adjust Goodness-of-Fit index (AGFI). The recommended values of Goodness-of-Fit statistics measures are list in Table 1:

Table 1. Recommended Values of Goodness-of-Fit (GOF) Statistics Induces

GOF Indies	$\chi^2/df$	RMR	RMSEA	GFI	AGFI
Recommended Value	$\leq 3.0$	$\leq 0.05$	$\leq 0.08$	$\geq 0.9$	$\geq 0.9$

## 4. Results and findings

The CFA produces the goodness-of-fit (GOF) indices for this hypothesized model (see Figure 2) is considered well-fitted. The results of GOF statistics are listed as follows:  $\chi^2/df = 1.031 < 3.0$ ;  $RMR = 0.00 < 0.05$ ;  $RMSEA = 0.013 < 0.08$ ;  $GFI = 0.967 > 0.9$ ;  $AGFI = 0.946 > 0.9$ .

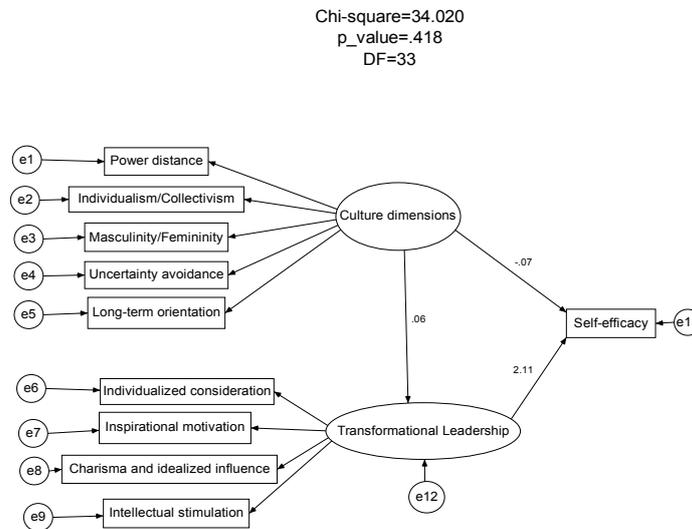


Figure 2. Results of original conceptual model

As shown in Table 2, the study shows that Hypothesis 1 is significant (Critical Ratios = 6.619 > 1.96;  $p = 0.00 < 0.05$ ). This means that culture dimensions significantly have direct effect on leadership behaviors. This is supported by previous finding (Darling & Heller, 2011; Hodgetts & Luthans, 2003; Mehta, 2003; Javidan and Carl, 2005; Rostamy & Taghilo, 2009; Gray, 2007; Horowitz, 2009; Sinclair, 2009). Moreover, Hypothesis 3 is also significant (Critical Ratios = 2.392 > 1.96;  $p = 0.017 < 0.05$ ). This indicates leadership behaviors significantly have significant effect on leadership self-efficiency. This is supported by previous researches (Bass, 1998). According to those parameter estimates, the model shows the culture dimension has indirect effect on leadership self-efficiency through transformational leadership. This is confirmed by past findings (Stevens & Campion, 1994; Catino, 1992). However, Hypothesis 2 is non-significant (Critical Ratios = 0.057 < 1.96;  $p\text{-value} = -1.258$ ). This means culture dimensions are not directly related to leadership self-efficiency.

Table 2 Direct and indirect impact on hypothesized model: Standardized regression weights

Hypothesis	Paths	Direct effect (std. estimate)	Indirect effect	Total effect	C.R.	P	Statue
H1	Culture → Leadership	0.059	0	0.059	6.619	***	Sig.
H2	Culture → Self-efficacy	-0.071	0.125	0.053	-1.258	0.208	Non-Sig.
H3	Leadership → Self-efficacy	2.11	0	2.11	2.392	0.017	Sig.

\*\*\* represents level of significance less than 0.001

## 5. Conclusion

Based on this finding, the research indicates that cultural dimensions have a significant influence on transformational leadership behavior, managers need to learn culture and modified their behavior when lead subordinate. This research helps managers consider the relationship among cultures dimensions, leadership behaviors and self-efficacy so that they should think culture differences and modified behaviors to achieve organizational goal. Based on this finding, the research indicates that leaders and managers can improve self-efficacy with transformational leadership. Moreover, organizational culture can be predicted with the instrument for measuring leadership behaviors. Managers should learn what efficient leadership is for the target country and modify their leadership style to accommodate to the organizational culture or further the change of organizational culture. As subordinates become more diverse, leaders must enhance appreciation

for human diversity. By communicating with diverse individuals, leaders can understand opinions of their followers, and establish a good relationship with followers.

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