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Statement of the Managing Editor

Happy New Year! In this issue, as in previous ones, we are pleased to publish the work of budding researchers on a wide array of topics.

In our first article, Sadiq analyzes the national culture and its impact on leadership practices in her native country, Maldives. Using a sample of 204 managers in Male city, she concludes that culture has a significant influence on leadership and given the cultural dimensions of Maldives, transformational leadership could be successfully used with subordinates. Chi-Cheng Fang, in our second article, constructs a knowledge diffusion framework to study age differences in a targeted population of multi-level marketing agents in Thailand. His study finds, except for subtle differences, no overall knowledge diffusion differences among age stages. Poolpol, in our third article, researched cross-cultural adjustment of 412 Japanese expatriates in Thailand. His study throws insights on the major predictors of cross-cultural adjustment and also outlines the human resource management practices that multinational companies should follow to ensure expatriate success on foreign assignments. Ottemoesoe's study examines stock split under bearish conditions, covering a period from mid 1997-1999 in Indonesia. Her findings show that a stock split can be a valuable economic event. In our fifth article, Techarongrojwong reviews theoretical and empirical evidence on how US monetary policy decisions affect stock prices in both the domestic and international contexts. The findings of her study are beneficial to academicians, investors and policy makers. In our final article, Boonchuaymetta examines the underpricing of IPOs in Thailand. Studying 152 IPO companies listed on the SET, the author uses six major elements as determinants. The findings show that IPO allocation is the strongest factor; however, the paper also cautions investors on absorbing information on IPOs from newspapers.

I express my gratitude to all the contributors; any meaningful improvements in the Journal are dependent on submissions. I also thank the readers for their useful suggestions. Please continue to send the Journal your very best.

Patricia Arttachariya, Ph.D.
Managing Editor

Contents

A STUDY OF THE IMPACT OF NATIONAL CULTURE ON TRANSFORMATIONAL LEADERSHIP PRACTICES IN THE MALDIVES

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บทคัดย่อ

งานวิจัยนี้ศึกษาวัฒนธรรมของประเทศมัลดีฟ และผลกระทบต่อภาวะผู้นำการเปลี่ยนแปลง กรอบแนวคิด สังเคราะห์จาก 5 มิติวัฒนธรรมของ Hofstede และรูปแบบภาวะผู้นำการเปลี่ยนแปลงของ Kouzes และ Posner ตัวแปรอิสระ คือ วัฒนธรรม และ ตัวแปรตาม คือ แนวทางของภาวะผู้นำการเปลี่ยนแปลง ผู้วิจัยตั้งสมมุติฐาน 26 ข้อ ในการศึกษา โดยสมมุติฐานหลักคือการทดสอบผลกระทบของวัฒนธรรมของชาติต่อแนวทางของผู้นำการเปลี่ยนแปลง สมมุติฐานหลักนี้ถูกย่อยลงไปเป็นสมมุติฐานย่อย 25 ข้อ เพื่อทดสอบผลกระทบของแต่ละมิติทางวัฒนธรรมต่อ พฤติกรรมผู้นำการเปลี่ยนแปลง

ผลการศึกษาพบว่า วัฒนธรรมของมัลดีฟมีระดับ Power Distance ต่ำ Individualism Masculinity Uncertainty Avoidance และ Long-Term Orientation ปานกลาง ข้อมูลที่ได้สนับสนุนสมมุติฐานหลัก วัฒนธรรมของชาติมี ความสัมพันธ์กับแนวทางผู้นำการเปลี่ยนแปลง สมมุติฐานย่อย 17 ข้อ ได้รับการสนับสนุน งานวิจัยนี้ยืนยันว่า วัฒนธรรม ของชาติมีอิทธิพลต่อแนวทางภาวะผู้นำและเสนอแนวทางที่เหมาะสม

Abstract

This study investigates the national culture of Maldives and its impact on transformational leadership practices of individuals. Drawing from Hofstede's five national cultural dimensions and Kouzes and Posner's leadership model of the five practices of a transformational leader, a conceptual framework was developed with national cultural dimensions as the independent variables and transformational leadership practices as the dependent variables.

Twenty-six hypotheses were proposed, with the main hypothesis to test the significant impact of national cultural dimensions on transformational leadership practices simultaneously. The main hypothesis was further broken down into twenty-five sub-hypotheses to test each national cultural dimension effect and influence on transformational leadership practices.

The analyses revealed that Maldives' national cultural values being low on Power Distance, high on Individualism and moderate on Masculinity, Uncertainty Avoidance and Long-Term Orientation. The main hypothesis was supported, as there was significant correlation between national culture and transformational leadership practices. Out of the twenty-five sub hypotheses, seventeen were supported as results showed significant impact of cultural values on leadership practices. The study confirmed that culture influences leadership practices and provides insight into the kind of leadership practices that can be best utilized with the subordinates.

INTRODUCTION

With the onset of globalization and increasing number of multinational corporations, understanding differences in multiple cultures and work-related values is a crucial element for survival and competitive advantage. Black & Mendenhall (1989) highlighted that increased internationalization in the economic, political and social arenas have led to greater interpersonal cross-cultural contact.

Many prominent cross-cultural management and leadership researchers such as Hofstede (2001) have indicated the impact culture has on leadership style, concepts and behaviors. Leadership style plays a major role in the management and success of organizations in the existing dynamic business environment. Therefore, understanding the country's national culture to see how it influences the style and effectiveness of a leader is essential.

Inadequate awareness of national culture or international cross-cultural variations, including values can exacerbate failure of multinational corporations. Management practices and policies should be in alignment with the national culture values so that they are more likely to be adopted by individuals (Fernandez, Carlson, Stepina, & Nicholson, 1997). Clearly, national culture is an important aspect that has to be explored further and identification of the impact it has on business and management practices is crucial in order to be successful in a global environment. For the purpose of this study, Hofstede's framework was applied at the individual level to determine the impact of national culture on transformational leadership behaviors of individuals.

LITERATURE REVIEW

National Culture:

Hofstede (1997) defines culture as "the collective programming of the mind which distinguishes the members of one group or category of people from another" (p. 5). As such, culture is learned from the social environment one lives in and is not inherited.

A number of models have been developed by theorists to identify and evaluate the different cul-

tural aspects of a nation: Hofstede, 1997; Schwartz, 1994; Triandis, 1982; Trompenaars, 1994. The GLOBE study (Global Leadership and Organizational Behavior Effectiveness) is another well-known project initiated by Robert J. House in 1991.

Hofstede's framework is one of the most widely used approaches for analyzing variations among cultures and since the publication of his book *Culture's Consequences*, his culture value dimensions have been widely adopted and has had a great impact than any other cultural models (Sivakumar & Nakata, 2001). Hofstede's study commenced in 1980 and compromised of 116,000 questionnaires, from which over 60,000 people responded from over 50 countries. The employees of a multinational corporation served as a purpose of identifying differences in national value systems. They represented well-matched samples from the populations of their countries, similar in all respects except nationality (Hofstede, 1993).

The four dimensions under which each nation was classified were identified as Power Distance (PDI), Individualism/Collectivism (IDV), Uncertainty Avoidance (UAI) and Masculinity/Femininity (MAS) (Hofstede, 1997a, 2001). Power distance is defined as "the extent to which the less powerful members of institutions and organizations within a country except and accept that power is distributed unequally" (Hofstede, 1997, p. 28).

Hofstede (1997) argues that individualism "pertains to societies in which the ties between individuals are loose; everyone is expected to look after himself or herself and his or her immediate family" (p. 51). Collectivism "pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect in exchange for unquestioning loyalty" (p. 51).

The third dimension Masculinity/Femininity refers to the extent to which a society predominately accept male or female values. Hofstede (1997) defines that masculinity "pertains to societies in while social gender roles are clearly distinct" (p. 82). For example, men are supposed to be assertive and tough and focus on material success while women are supposed to be modest, tender and concerned with quality of life. Femininity, on the other hand "pertains to societies in which social gender roles over-

lap" (Hofstede, 1997, p. 82). For example, both men and women are supposed to be modest, tender and concerned with the quality of life. Hofstede (1997) defined uncertainty avoidance as "the extent to which the members of a culture feel threatened by uncertain or unknown situations" (p. 113).

In a subsequent study conducted in 1988 by Hofstede and Bond, a fifth dimension was introduced known as the Long/Short- term orientation or 'Confucian Dynamism' (Hofstede 1997a). The fifth dimension was derived from a study of twenty-three countries in five continents using Chinese Value Survey (CVS) distributed to fifty male and fifty female students from each of the country (Hofstede, 1993). Long-term orientation (LTO) includes future-oriented values such persistence and thrift, whereas short-term orientation refers to past and present-oriented values (Hofstede, 1997).

Hofstede's model has been scrutinized greatly and subjected to both compliments and criticism. Hofstede's framework is widely recognized and is applied in different fields and disciplines. He has also become the most widely cited social scientist of all time. An analysis of citations (using the Social Sciences Citation Index - SSCI) showed that Hofstede's work is one of the most cited non-American in the SSCI. His work on culture has been cited in various discipline including psychology, marketing, sociology, anthropology, philosophy and political science amongst others (Bond, 2002; Hofstede, 1997; Sivakumar & Nakata, 2001).

Many other researchers and theorist expressed their disagreement with regard to Hofstede's model. Hofstede assumed that in IBM there exists uniformity on organizational culture indicating that there is a single worldwide IBM organizational culture. However, this is not the case as many literatures extensively argue for recognition of "multiple, dissenting, emergent, organic, counter, plural, resisting, incomplete, contradictory cultures" (McSweeney, 2002, p. 96) in organizations. Fang (2003) criticized Hofstede's work in relation to the fifth national culture dimension (long-term orientation) stating that it divides interrelated values into two opposing poles, hence violating the concept of Chinese philosophy Ying Yang. Furthermore, just having four or five dimensions is not sufficient enough to identify differences across national cultures (Jones, 1997).

Transformational Leadership:

Leadership has been a topic of interest to historians and philosophers since ancient times and yet scientific studies on it began only in the twentieth century. Leadership has been defined in terms of "individual traits, behavior, influence over other people, interaction patterns, role relationships, occupation of an administrative position, and perception by others regarding legitimacy of influence" (Yukl, 1989, p. 2). One of most widely used and influential theory is transformational leadership.

Burns (1978) first introduced the concept of transforming leadership in his book 'Leadership'. He defined it as a process in which "leaders and followers raise one another to higher levels of motivation and morality" (Burns, 2010, p. 69). Transforming leadership can be exhibited by anyone in the organization in any type of position. He also proposed that transforming leaders "shapes, alters, and elevates the motives, values and goals of followers achieving significant change in the process" (Bolden, Gosling, Marturano, & Dennison, 2003).

Bass (1985) developed Burns' concept of transforming leaders into transformational leadership - where the leader transforms followers. Followers' response to transformational leadership is based on the commitment to a higher morale responsibility rather than self-interest. Bass (1990) explains that transformational leadership occurs "when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group" (p. 21).
In an attempt to uncover the fundamental practices that leaders manifest when performing at their personal best to get extraordinary things done, Kouzes & Posner developed the leadership practices model (Kouzes & Posner, 2001). This study focuses on Kouzes & Posner's leadership model as an approach to transformational leadership. According to the model there are five behaviours or practices of leaders: 1) challenging the process, 2) inspiring a shared vision, 3) enabling others to act, 4) modelling the way and 5) encouraging the heart.

Challenging the process consists of two components namely (1) search for opportunities by seek-

ing innovative ways to change, grow, and improve and (2) experiment and take risks by constantly generating small wins and learning from mistakes (Kouzes & Posner: 2001, 2007).

The two commitments of inspiring a shared vision is through (1) Envision an uplifting and ennobling future and (2) Enlist others in a common vision by appealing to their values, hopes and dream (Kouzes & Posner: 2001, 2007).

Kouzes & Posner explained Enabling Others to Act with two components: (1) Foster collaboration by promoting cooperative goals and (2) strengthen others by sharing power and discretion. When leaders foster collaboration and build trust, a sense of teamwork is developed in the organization thus engaging all those who must make a particular project to work (Kouzes & Posner: 2001, 2007).

Model the Way can be achieved by (1) finding your voice by clarifying your personal values and (2) setting the example by aligning actions with shared values. The last principle of Kouzes and Posner model is to encourage the heart by (1) recognizing contributions by showing appreciation for individual excellence and (2) celebrating the values and victories by creating a spirit of community (Kouzes & Posner, 2002).

Previous Empirical Studies on National Culture and Transformational Leadership:

Different researchers and theorists adopted various kinds of leadership assessment tools and cultural models to conduct such studies. Matviuk (2010) conducted an empirical study on the correlation of cultural dimensions with leadership behavior expectations among a group of 122 managers of production plants in Mexico. The researcher utilized Kouzes and Posner's LPI instrument and Hofstede's VSM version 1994. The findings of canonical correlation analysis (CCA) showed that specific interactions among the dimensions of culture correlate with specific interactions of the dimensions of the leadership behavior expectations.

Others researchers have conducted cross-cultural studies on national culture and transformational leadership to gain an understanding on comparative leadership practices among cultures. Gooden's (2003) study on MBA students from Jamaica, Bahamas, Panama and Fort Lauderdale (USA) revealed that national culture correlates with transformational leaders' practices, thereby concluding that practices must be compatible within the culture in which each leader operates. Gooden (2003) used the Hofstede's VSM 1994 and Bass & Avolio's (1994) Multifactor Leadership Questionnaire.

Zagorsel, Jaklic & Stough (2004) did a study on comparative leadership practices by using LPI-Self developed by Kouzes & Posner that was administered to 110 MBA students in the United States, 105 MBA students from Nigeria and 134 MBA students from Slovenia. Hofstede's model was also utilized to identify differences in terms of national cultural aspects. Their findings suggested that some practices such as Challenging the process, Inspired Shared Vision, and Encouraging the Heart may be universally practiced. However, other practices such as Enabling Others to Act and Modeling the Way, are culturally contingent. Their final conclusion is culture does have an impact but is not so strong in a 'global village'. Aimar & Stough (2007) conducted a similar cross-cultural study in United States and Argentina. They also utilized Kouzes & Posner's LPI instrument that was administered to MBA students of the two countries.

An analysis of the data obtained were studied with Hofstede's model to understand to what extent leadership practices were culturally contingent. Their study concluded that though leaders from culturally different countries use leadership practices in many similar ways, the perception of the extent to which one engage in these practices, varies significantly from culture to culture.

Muenjohn & Armstrong (2007) conducted a study of Thai subordinates who worked under Australian expatriates in Thailand to determine the relationship between work- related values of host-nation subordinates and the leadership behaviors exhibited by expatriate managers. The researchers used Hofstede model to determine cultural values of Thai subordinates while the MLQ was utilized to measure the leadership behaviors of Australian expatriates. Their findings revealed that the four cultural dimensions had no significant impact on transformational, transactional, and non-leadership behaviors. However, there was an exception of a small positive impact of power distance on transforma-

tional leadership. In general, their research found a limited influence of the cultural dimensions on the three major leadership behaviors. Similar to the findings of the study done by Zagorsel, Jaklic & Stough (2004), this study too showed that culture seemed to play a limited role.

Cultural values and leadership practices/styles have also been intensely studied with another important element, job satisfaction. A study to investigate an individual's self- assessed perspective about how work related cultural values and level of job satisfaction affect one's propensity towards transformational leadership behaviors was conducted by Macheno-Smoak (2008) and Mancheno-Smoak, Endres & Potal (2009). Though the researchers utilized the LPI scales for transformational leadership behaviors and Dorfman & Howell's (1988) cultural model. The findings suggested that the self-assessment were high on uncertainty avoidance, high of collectivism, low on power distance and low job satisfaction, to be high on transformational leadership behaviors. Their analysis also revealed that all cultural values correlated with LPI scale for transformational leadership behavior.

RESEARCH FRAMEWORK

The research framework is based on Hofstede's model of cultural dimension and Kouzes & Posner's Leadership Practices Inventory for assessing leadership behavior. The conceptual framework is derived from the Literature Review discussed. The template of the conceptual framework is presented below:

The main hypotheses for the study is:

Ho1: There is no significant impact of national culture on transformational leadership behaviors of individuals.

H2 to H26 pertains to the impact of each national cultural dimension on each transformational leadership practices.

RESEARCH METHODOLOGY

The study was approached in causal design, quantitative and descriptive manner. The nature of the sample for the study was non-probability convenience sampling. Primary data collection was carried out through the means of self-administered survey. Value Survey Model 1994 (VSM 94) developed by Hofstede (1994) and Leadership Practices Inventory (LPI) for self-reporting developed by Kouzes and Posner (2001) were used for the study. The targeted population was the local people employed in managerial position at government offices, private and public companies in Male City. A total of 204 responses were received which was used for data analysis.

ANALYSIS AND FINDINGS

A breakdown of the respondents by sex showed that 43% of respondents were male and 57% were female. Data on age distribution revealed that the majority of the respondents were in the age group

Figure 1: National Cultural Dimensions and Transformational Leadership Practices

National Cultural
Power Distance
Individualism/Collectivism
Masculinity/Femininity
Uncertainty Avoidance
Long-term/short-term orientation

Transformational Leadership Practices
Challenging the Process
Inspiring a shared vision
Enabling Others to Act
Modeling the Way
Encouraging the Heart
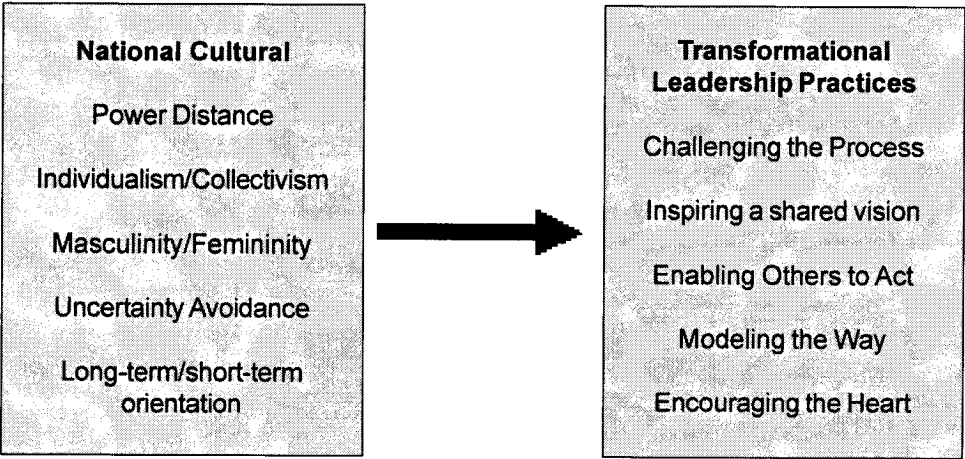
25-34 (61%). 13% belonged to the age group 18-24 years, 20% were in the age group 35-44 and 6% were in the age group 45-54. The data also showed that the majority of the respondents had 11 years to 14 years of formal school education starting from primary school, which constituted to 45%. A total of 20% of the respondents were in the category 10 years or less, 24% had formal school education of 15 years to 17 years while 11% had formal education of 18 years and above.

Reliability of the LPI in the Maldivian Context:

The overall LPI instrument was found to be highly reliable (30 items; = 0.963) and running the test with subscales also showed very high reliability with < = 0.917 for the 5 subscales.

National Cultural Dimensions:

Based on the sample size from Male city, the highest dimension was IDV at 77, higher than world average of 43. The second highest dimension was UAI at 56, compared to a world average of 64. The country scored 45 and 44 on MAS and LTO respectively, lower than the world average of 50 and 45. The lowest Hofstede dimension for Maldives was PDI at 25, significantly lower than world average of 55.

Hypotheses Testing:

A canonical correlation analysis was conducted using the national cultural dimensions as predictors for transformational leadership practices to evaluate the multivariate shared relationship between these two variable sets. Canonical correlation analysis yielded five functions with squared correlation of 0.1155, 0.4613, .02035, .00556 and .00271 for each successive function The multivariate tests of significance below show that $p < 0.05$ in all the tests suggesting that the model is statistically significant. This implies that there is an impact of national culture on transformational leadership practices. Therefore, the null hypothesis 1 can be rejected.

Table 1: Multivariate Test of Significance

Test Name	Value	Approx.F	Hypoth.DF	Error DF	Sig. of F
Pillais	0.19030	1.56685	25.00	990.00	0.038
Hotellings	0.20809	1.60149	25.00	962.00	0.031
Wilks	0.81966	1.58860	25.00	722.18	0.035
Roys	0.11555				

Table 2: Summarized Results of Regression Analysis

No	Hypothesis	R	R-Sq	F	Sig	T
1	LTO and Model the Way	0.252	0.064	13.727	0.000	-3.705
2	IDV and Model the Way	0.245	0.060	12.890	0.000	-3.590
3	IDV and Challenge the Process	0.186	0.035	7.261	0.008	-2.695
4	IDV and Enabling Others to Act	0.186	0.034	7.205	0.008	-2.684
5	LTO and Encourage the Heart	0.185	0.034	7.155	0.008	-2.675
6	LTO and Enabling Others to Act	0.179	0.032	6.654	0.011	-2.580
7	MAS and Model the Way	0.178	0.032	6.630	0.011	-2.575
8	LTO and Inspire a Shared Vision	0.174	0.030	6.303	0.013	-2.511
9	IDV and Inspire a Shared Vision	0.172	0.030	6.160	0.014	-2.482
10	UAI and Enabling Others to Act	0.166	0.027	5.689	0.018	2.385
11	UAI and Model the Way	0.166	0.028	5.730	0.018	2.394
12	IDV and Encourage the Heart	0.166	0.028	5.737	0.018	-2.395
13	MAS and Encourage the Heart	0.153	0.023	4.811	0.029	-2.193
14	UAI and Encourage the Heart	0.149	0.022	4.570	0.034	2.138
15	UAI and Challenge the Process	0.143	0.020	4.217	0.041	2.054
16	PDI and Model the Way	0.139	0.019	3.980	0.047	-1.995
17	LTO and Challenge the Process	0.125	0.016	3.125	0.074	-1.793
18	MAS and Inspire a Shared Vision	0.124	0.015	3.140	0.078	-1.772
19	UAI and Inspire a Shared Vision	0.115	0.013	2.718	0.101	1.649
20	MAS and Enabling Others to Act	0.092	0.008	1.725	0.191	-1.313
21	MAS and Challenge the Process	0.086	0.007	1.493	0.223	-1.222
22	PDI and Enabling Others to Act	0.081	0.007	1.349	0.247	-1.162
23	PDI and Challenge the Process	0.064	0.004	0.825	0.365	-0.908
24	PDI and Encourage the Heart	0.051	0.003	0.526	0.469	-0.725
25	PDI and Inspire a Shared Vision	0.012	0.000	0.027	0.869	-0.166

Results of H2 to H26 show that some of national cultural dimensions have impact on some of leadership practice inventory (Refer table no: 2).

As seen in the summarized Table 2, item numbers 1 through 16 are statistically significant where the independent variable have an impact on the dependent variable. R-sq indicates the percentage of variance on the dependent variable by the independent variable. The model is considered statistically significant where $p < 0.05$. The t-values greater than 2 are also considered significant and these values represent that there is a main effect from the independent variable. Results also showed the following findings:

1) LTO was inversely related to Model the Way, Encourage the Heart, Enable the Heart and Inspire a Shared Vision.

2) IDV was inversely related to all the five practices of transformation leadership practices.

3) MAS had a negative relationship with Model the Way and Encourage the Heart.

4) UAI had a positive relationship with Enable Others to Act, Model the Way, Encourage the Heart and Challenge the Process

5) Power Distance had an inverse relationship with Model the Way

DISCUSSION

Maldives score on Hofstede's first dimension PDI was 25, much lower than world average of 55. Maldives underwent a democratic reform in 2004, which led to the establishment of independent institutions such as Human Rights Commission of the

Maldives, the Civil Service Commission, and the ratification of a reform Constitution. The democratic reform gave rise to the first ever multi-party election in 2008 (Transparency Maldives, 2008). Since then the citizens are not intimidated by fear and are able to freely question authority through means of mass demonstration, media and public. The trend can be seen in both government and private institutions where employees are seen to be freely questioning authority. In light of these changes, Maldives has scored low on Power Distance.

Maldives score on the IDV index is 77 which is the highest Hofstede dimension overall, compared to a world average of 43. While Maldives is a close-knit society with extensive relationships within and between families, the remoteness of the islands has compelled individuals to rely on themselves. Smaller nuclear families are increasingly becoming common mainly as a result of lack of living space and economic self-reliance within families (Ahmed, 2007).

Maldives scored 45 on MAS index, compared to world average of 50. Traditionally, gender gaps were persistent and the role of men and women in Maldives were clearly distinct. Even though in the last few years, much have changed and women make a significant contribution to social, political and economic affairs, women continue to face discrimination in most walks of life.

Maldives scored 56 on UAI, comparatively lower than world average score of 64. Maldivians have a moderate tolerance level for uncertainty and change. Any major change within a corporation or country's policy tends to create uneasiness and is subjected to criticism and abuse. Maldivian culture has a fairly moderate level of tolerance for change and unambiguous situation as it takes time for the society to accept changes and learn to live with it.

In the last Hofstede's dimension LTO, Maldives scored 44 compared to world average 45. Maldivian society has a great respect for tradition and this is revived during festive holidays and special occasions. Traditional food, music, dance, events and other cultural events and ceremonies continue even to present day reflecting the short-term orientation of the Maldives.

The result showed that all five dimensions of culture correlated with the transformational leadership practices. The findings confirm what literature suggests about the relationship between culture and leadership practices. Findings by Gooden (2003), Matviuk (2010), and Macheno-Smoak (2008) that dimensions of national culture correlates with transformational leadership practices are thus confirmed.

On further examination of each cultural value dimension on the five leadership practices showed that power distance had a significant impact only on Model the Way. This result is in line with the study by Muenjohn & Armstrong (2007) where Power Distance overall had only a small significant impact on transformational leadership practices. A low power distance environment will make it easier for the manager to communicate effectively to his subordinates as the lack of emotional distance can facilitate the process.

On the individualism dimension, results showed that it had a significant impact on all the five practices of transformational leadership practices. In addition, IDV had a negative relationship with all the scales of LPI. Jung & Avolio (1999) argued that people from individualistic cultures are expected to be more motivated to satisfy their own self-interest and personal goals. As a result, individualists may be more motivated by short-term focused transactional leadership than transformational leadership. This statement is further affirmed by the study of Macheno- Smoak, Endres & Potak (2009) where the researchers found that collectivism were positively related to transformational leadership.

Masculinity value dimension had a significant impact on two practices of transformational practices, namely Encourage the Heart and Model the Way. With a moderate level of Masculinity, it is expected that most leaders practice the above two up to a certain level. The research also showed an inverse relationship between MAS index and both the transformational leadership practices of Encourage the Heart and Model the Way. This indicates that lower the level of masculinity the higher the chances of leaders practicing transformational leadership behaviors and vice versa. This result is therefore is consistent with the findings of Hartog et al. (1999).

On the uncertainty avoidance value dimension, the research showed significant impact on all transformational leadership practices except with Inspire a Shared Vision. This is parallel with the findings of Macheno- Smoak, Endres & Potak (2009), which

showed that uncertainty avoidance is positively related to transformational leadership practices.

Maldives was found to be moderate in LTO and had a negative relationship with transformational leadership practices. This result is in contradiction to what is found in most studies that show LTO has a positive relationship with transformational leadership practices (Aydogdu & Asikgil, 2011; Jung & Avolio, 1999; Lemma, 2007). It can be assumed that because of the short-term oriented culture of Maldives, leaders are more prone to satisfying employee's short-term goals by developing their skills, immediate rewards and celebrations, provide trainings which will ultimately maximize the long-term potential.

IMPLICATIONS

The study provides evidence and supports the literature reviewed that culture influences transformational leadership practices. Research also provides compelling evidence that transformational leadership best works in collectivist societies. An organizational culture where values like teamwork, cooperation and betterment of the whole company are emphasized can help to foster the desired working environment.

Transformational leadership can be practiced and successful in the Maldives given the low power distance, and moderate level of masculinity, uncertainty avoidance and long-term orientation. It also requires connecting with the employees, understanding their needs and building trust and appreciation that best fits an environment of low to moderate level of masculinity.

Experimenting and taking risks, looking for ways to improvise the work process and change requires leaders and subordinates that have high level tolerance for uncertainty. Moderate uncertainty avoidance level can help to achieve these practices but not to the full potential due to the possibility of leaders/subordinates being highly cautious. Maldives being short-term oriented will require leaders to fulfill the short-term needs of employees and gaining their confidence to build a successful future. A transformational leader should be able to convince his/her subordinates about the benefits of common future vision and planning for the same.

Understanding culture therefore provides insight into the kind of leadership practices that can be best utilized with the subordinates. Leadership styles that are aligned with cultural values have better chances for an organization's success.

LIMITATIONS

The questionnaire is still a tool that measures western concepts and therefore, there could be concerns that the results could be due to the influence of western concepts. There is also the possibility of bias due to self-reported leadership practices as it may contrast with the actual behaviors of leaders. Focusing only on managerial level employees may have resulted in bringing out cultural values that reflect the values of managers alone. So a better understanding on culture can be gained when several locations in Male are covered. For this study specifically, the results could be reflective of values and attitudes of managerial employees and not appropriate for generalization of the whole country.

BIBLIOGRAPHY

Ahmed, A. (2007). *Social Development Management Information Systems*. Ministry of Planning and National Development. Male: Ministry of Planning and National Development.

Aimar, C., & Stough, S. (2007). Leadership: Does Culture Matter? Comparative Practices Between Argentina and United States of America. *Academy of Educational Leadership Journal*, 11 (3), 9-43.

Aydogdu, S., & Asikgil, B. (2011). The Effect of Transformational Leadership Behavior on Organizational Culture: An Application in Pharmaceutical Industry. *International Review of Management and Marketing*, 1 (4), 65-73.

Bass, B. M. (1990). From Transactional to Transformational Leadership: Learning to Share the Vision. *Organizational Dynamics*, Winter, 19-31.

Bass, B. M. (1997). Does the Transactional - Tranformational Leadership Paradigm Tran-

scend Organizational and National Boundaries. *American Psychologist*, 52 (2), 130-139.

Bass, B. M. (1997). Personal Selling and Transactional/Transformational Leadership. *The Journal of Personal Selling and Sales Management*, 17 (3), 19-29.

Bass, B. M. (1998). *Transformational Leadership: Industrial, Military, and Educational Impact*. New Jersey: Lawrence Erlbaum Associates.

Bass, B. M. (2002). Cognitive, Social and Emotional Intelligence of Transformational Leaders. In R. E. Riggio, *Multiple Intelligence and Leadership* (pp. 105-118). New Jersey: Lawrence Eribaum Associates.

Bass, B. M., & Avolio, B. J. (1993). Transformational Leadership and Organizational Culture. *Public Administration Quarterly, Spring*, 112-121.

Bass, B. M., & Avolio, B. J. (1994). *Improving Organizational Effectiveness Through Transformational Leadership*. California: Sage Publications.

Bass, B. M., & Bass, R. (2008). *The Bass Handbook of Leadership: Theory, Research & Managerial Applications* (4th edition ed.). New York: Free Press.

Bass, B. M., & Steidlmeier, P. (1999). Ethics, Character, and Authentic Transformational Leadership. *The Leadership Quarterly*, 10 (2), 181-217.

Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting Unit Performance by Assessing Transformational and Transactional Leadership. *Journal of Applied Psychology*, 88 (2), 201-218.

Bass, B. M., Waldman, D. A., Avolio, B. J., & Bebb, M. (1987). Transformational Leadership and The Falling Dominoes Effect. *Group and Organizational Studies* (1986-1998), 12 (1), 73-87.

Black, S. J., & Mendehall, M. (1989). A Practical But Theory-Based Framework for Selecting Cross-Cultural Training Methods. *Human Resources Management*, 28 (4), 511-539.

Bolden, R., Gosling, J., Marturano, A., & Dennison, P. (2003). *A Review of Leadership Theory and Contemporary Frameworks*. University of Exeter. Exeter: University of Exeter.

Bond, M. H. (2002). Reclaiming the Individual from Hofstede's Ecological Analysis - A 20 Year Odyssey: Comment on Oyserman et al. (2002). *Psychological Bulletin*, 128 (1), 73-77.

Burns, J. M. (2010). Leadership. In G. R. Hickman, *Leading Organizations: Perspectives for a New Era* (pp. 66-75). California: Sage Publications.

Fang, T. (2003). A Critique of Hofstede's Fifth National Cutural Dimension. *International Journal of Cross Cultural Management*, 3 (3), 347-368.

Fernandez, D. R., Carlson, D. S., Stepina, L. P., & Nicholson, J. D. (1997). Hofstede's country classification 25 years later. *The Journal of Social Psychology*, 137 (1), 43-54.

Gooden, D. J. (2003). *An Examination of National Culture and Transformational Leaders' Practices Across Four Countries*. Nova Southeastern University, School of Business and Entrepreneurship. ProQuest Information and Learning Company.

Hartog, D. N., House, R. J., Hanges, P. J., Ruiz-Quintanilla, A. S., & Dorfman, P. W. (1999). Culture Specific and cross-culturally generalizable implicit leadership theories: Are attributes of charismatic/transformational leadership universally endorsed? *The Leadership Quarterly*, 10 (2), 219-256.

Hofstede, G. (1993). Cultural Constraints in Management Theories. *The Executive*, 7 (1), 81-94.

Hofstede, G. (1994). *Geert Hofstede and Gert Jan Hofstede*. Retrieved May 15, 2011, from Value Survey Model 1994: www.geerthofstede.nl/media/312/Manual%20VSM94.doc.

Hofstede, G. (1997). *Culture and Organizations: Software of the Mind*. New York: McGraw-Hills.

Hofstede, G. (1997). The Archimedes Effect. In M. H. Bond, *Working at the Interface of Cultures* (pp. 47-61). London: Routledge.

Hofstede, G. (2001). *Culture's Consequences - Comparing Values, Behaviors, Institutions, and Organizations Across Nations* (2nd Edition ed.). California: Sage Publications Inc.

Hofstede, G. (2006). What did GLOBE really mea-

sure? Researchers' Mind versus Respondents' Mind. *Journal of International Business Studies*, 37, 882-896.

Hofstede, G., & Minkov, M. (2010). Long versus short-term orientation: new perspectives. *Asia Pacific Business Review*, 16 (4), 493-504.

Jones, M. (1997). Hofstede - Culturally Questionable? *Oxford Business & Economics Conference* (p. 9). Wollongong: University of Wollongong.

Jung, D. I., & Avolio, B. J. (1999). Effects of leadership style and followers' cultural orientation on performance in group and individual task conditions. *Academy of Management Journal*, 42 (2), 208-218.

Kouzes, J. M., & Posner, B. Z. (2001). *Leadership Practices Inventory* (LPI) (2nd Edition ed.). San Fransico: Jossey-Bass/Pfeiffer.

Kouzes, J. M., & Posner, B. Z. (2002). *The Leadership Challenge* (3rd Edition ed.). San Francisco: John Wiley & Sons.

Kouzes, J. M., & Posner, B. Z. (2003). *The Leadership Challenge*. San Francisco: John Wiley & Sons.

Kouzes, J. M., & Posner, B. Z. (2007). *The Leadership Challenge* (4th Edition ed.). San Francisco: John Wiley & Sons, Inc.

Lemma, M. (2007). *An Assessment of Transformational Leadership*. Addis Ababa University, Faculty of Business and Economics. Ethiopia: Addis Ababa University.

Mancheno-Smoak, L. (2008). *Transformational Leadership, Work-related Cultural Values, and Job Satisfaction*. Nova Southeastern University, School of Business and Entrepreneurship. ProQuest LLC.

Mancheno-Smoak, L., Endres, G. M., & Potak, R. (2009). The Individual Cultural Values and Job Satisfaction of the Transformational Leader. *Organizational Development Journal*, 27 (3), 9-21.

Matviuk, S. (2010). A Correlation Study of Culture and Leadership Expectations in a Mexican Manufacting Plant. *The Business Review*, Cambridge, 15 (1), 14-19.

McSweeney, B. (2002). Hofstede's Model of National Cultural Differences and Their Consequences: A Triumph of Faith - a failure of analy-sis. *Human Relations*, 55 (1), 89- 118.

Muenjohn, N., & Armstrong, A. (2007). Transformational Leadership: The Influence of Culture on the Leadership Behaviors of Expatriate Managers. *International Journal of Business and Information*, 2 (2), 265-283.

Schwartz, S. H. (2004). Mapping and Interpreting cultural differences around the world. In H. Vinken, J. Soeters, & P. Ester, *Comparing Cultures: Dimensions of Culture in a Comparative Perspective* (pp. 43-73). Boston: Brill.

Sivakumar, K., & Nakata, C. (2001). The Stampede Towards Hofstede's Framework: Avoiding the Sample Design Pit in Cross-Cultural Research. *Journal of International Business Studies*, 32 (3), 555-574.

Transparency Maldives. (2008). *Domestic Observation of the 2008 Maldivian Presidential Election*. Male: Transparency Maldives.

Triandis, H. C. (2004). Dimensions of Culture Beyond Hofstede. In H. Vinken, J. Soeters, & P. Ester, *Comparing Cultures: Dimensions of Culture in a Comparative Perspective* (pp. 28-42). Boston: Brill.

Trompenaars, F. (1994). *Riding the Waves of Culture: Understanding Diversity in Global Business*. Irwin: Burr Ridge.

Yukl, G. A. (1989). *Leadership in Organization* (2nd Edition ed.). New Jersey: Prentice- Hall.

Zagorsek, H., Jaklic, M., & Stough, S. J. (2004). Comparing Leadership Practices Between the United States, Nigeria, and Slovenia: Does Culture Matter? *Cross Cultural Management*, 11 (2), 16-34.

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THE IMPACT OF AGE ON KNOWLEDGE DIFFUSION DYNAMICS

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บทคัดย่อ

การที่ประชากรในประเทศต่าง ๆ มีอายุเฉลี่ยเพิ่มสูงขึ้น อาจทำให้ต้องมีการพิจารณาองค์ประกอบของแรงงาน
กันใหม่ งานวิจัยด้านการเผยแพร่ความรู้ (Knowledge diffusion) ยังขาดการศึกษา ปัจจัยด้านอายุ งานวิจัยนี้ ศึกษาแนวคิด
ในเรื่องการเผยแพร่ความรู้และศึกษาความแตกต่างระหว่างประชาชนที่มีอายุต่างกันในด้านพฤติกรรมการเผยแพร่
ความรู้ ประชากรที่ใช้ในการศึกษา คือ ผู้อยู่ในระบบขายตรง (MLM) เนื่องจากระบบขายตรงมีขอบเขตของความรู้ที่
ชัดเจน อายุของกลุ่มตัวอย่างอยู่ระหว่าง 17 - 75 ปี ผลการวิจัยพบว่า กลุ่มตัวอย่างที่อายุต่างกัน มีพฤติกรรมในด้าน
การเผยแพร่ความรู้แตกต่างกันเพียงเล็กน้อย

Abstract

Growing aging indices in many countries might create reconsideration of the work force distribution. In knowledge diffusion research there are very limited studies done in group comparisons especially on the age factor. This study constructs a knowledge diffusion framework and used it to evaluate age differences among age stages. The study used multilevel marketing (MLM) active agents as the context for its constrained knowledge scope and the similarity among MLMs. The age distribution of respondents ranged between 17 and 75. The findings revealed that respondents in different age stages showed no major differences in overall knowledge diffusion behaviors except for some subtle differences.

INTRODUCTION

The growing proportion of senior citizens is an emerging concern for future human resources (Gavrilov & Heuveline, 2003) and there is a common perception that age and working capability are related. Managers perceive that 40 is the downhill age (Kreps, 1977). However the relationship between mental capability and the population age from 40 to the retiring age of 65 remains ambiguous. Using knowledge diffusion as the foundation of human capital developments (Gettier, 1966), this study aims to find out whether there are age differences in knowledge diffusion performance and uses the findings as the reference to adjust the perception of age factor for future human resource planning.

The study discusses previous research and theories, uses the arguments to construct a knowledge diffusion path diagram, and performs a multigroup analysis among age stages. The targeted population is the multilevel marketing businesses (MLMs) in Thailand for the similarity in the business practices among MLMs.

REVIEW OF THE LITERATURE

Knowledge Diffusion

Diffusion is a phenomenon of a mass from higher concentration milieu to the lower concentration milieu (Graham, 1852). The knowledge diffusion occurs when there are imbalances between the technical dimensions that seek an equilibrium determined by changes in the economic attributes (Dosi, 1988). Successful knowledge diffusion depends on how precisely the original knowledge is to be copied, replicated, imitated and reproduced.

Determinants Related to Knowledge Diffusion

Source capability includes disseminative capability, experience and expertise. Disseminative capability is the ability to construct a meaningful description about the knowledge, which includes the support or willingness to share the knowledge (Feder & Slade, 1985; William, 2007; Minbaeva, 2007). According to Shannon (1948), the source's ability to well codify and transfer knowledge is needed for recipients to decode and adopt the knowledge. Disseminative capability improves knowledge diffusion (Minbaeva, 2007). Recipient's perceived supportiveness reduces the stress on approaching knowledge source and increases the level of dissemination and facilitates knowledge diffusion (Nucholls, Callell, & Kaplin, 1972). Experience increases tacit knowledge (Nelson & Winter, 1982, Berman, Down & Hill, 2002), reduces knowledge ambiguity and makes it easier to be transferred (Simonin, 1999). Expertise is the know-how, proficiency and skills. The theory of source credibility (Hovland & Weiss, 1951) and social learning theory (Bandura, 1977) posited that recipients are more likely to acquire knowledge from creditable sources whom they perceived as having expertise. Based on the discussion, the following relationship is constructed:

> Source capability has positive impact on knowledge diffusion.

Recipient capability includes absorptive capability and recipient expertise. Absorptive capability is the ability to assimilate the knowledge learned or the perceived easiness of absorption (Cohen & Levinthal, 1990), or the prior knowledge and the willingness on adopting of new knowledge (Minbaeva, 2007). The simplest codified knowledge requires a sufficient absorptive capability to understand (Shariq, 1999). The efficiency of knowledge diffusion depends on the recipient's ability to add new knowledge to existing knowledge (Grant, 1996). Absorptive capability improves knowledge diffusion (Doring & Schnellenbach, 2006; Minbaeva, 2007; Simonin, 2004; Szulanski, 1996; Williams, 2007). Recipient expertise is a subjective view on the recipient's overall competence (Minbaeva, 2007),

which posited a similar definition as absorptive capability. Thus, the following relationship is constructed:

> Recipient capability has positive relationship on knowledge diffusion.

Knowledge gap, knowledge distance, or knowledge interval (Morone & Taylor, 2004) possesses a similar meaning, "... is the gap between what we should know ... ... and what we really know at a given point in time". (Regev, Shtub, & Ben-Haim, 2006, p: 17).

A knowledge gap exhibits influences in knowledge diffusion by affecting the level of adoption and understanding about the knowledge transferred and the speed of transfer (Morone & Taylor, 2004). However, the finding was inconsistent with social comparison theory (Hornstein, Fisch & Holmes, 1968) which argues that people comparing themselves with others and believing in themselves should have similarity with others, which creates motivation to close the gap. Additionally, Gupta and Govindarajan (2000) posited that the wider the knowledge gap the greater the knowledge is transferred. Thus, the following relationship is constructed:

> Knowledge gap affects the knowledge diffusion.

Social Context

"*...neglecting context is the greatest single disaster which philosophic thinking can incur*" (Dewey, 1998, p: 211). Context includes the structure, process and reality (Barnett & Casper, 2001). Structure refers to the tie strength and path length and, process refers to the interplay or socialization mechanism (Earle & Earle, 1999). Reality refers to culture and language (Searle, 1995).

Tie strength. Tie strength is how close or intimate and how often an interaction between a people takes place(Cross & Sproull, 2004; Granovetter, 1973; Hansen, 1999; Levin & Cross, 2004; Marsden & Cambell, 1984; Reagans & McEvily, 2003). Tie strength supports the receiving of knowledge in various ways. Granovetter (1973) argued that implicit knowledge can be better transferred

through strong ties, while explicit coded knowledge favors weak ties. Murray & Peyrefitte (2007) cited Strang and Soule's (1998) argument, that relationships between knowledge sources and recipients are an important determinant of knowledge diffusion. Reagans and McEvily (2003) posited that stronger ties improve knowledge diffusion. Thus, the following relationship is constructed:

> Stronger tie strength improves level of knowledge diffusion.

Path length has been defined as the social distance between the source and the recipient (Morone and Taylor, 2004). Mixed relationships were found between path length and knowledge diffusion. Reagans and McEvily (2003) argued that network range improve knowledge transfer from a source to a recipient while Morone and Taylor (2004) gave a negative argument. Positive relationship was found in external consultancy activities (Lee & Allen, 1982). An inverted U shape was found between path length and knowledge diffusion of patents (Miller, et al., 2007). Thus:

> There is a relationship between path length and the knowledge diffusion.

Socialization mechanism is "*The process by which an individual acquires the social knowledge and skills necessary to assume an organizational role*" (Van Maanen & Schein, 1979, p. 211). It is the process of learning what is expected (King & Sethi, 1998), the exchanging of ideas, beliefs, visions, and gaining cultural consensus among members within a social network (Björkman, et al., 2004). It is an on-going activity (Baker & Feldman, 1991; Klein & Weaver, 2000; Taormina, 2004) as explained in the process of knowledge spiral, socialization-externalization-combination-internalization (SECI) (Nonaka & Takeuchi, 1995). Gupta & Govindarajan (2000) separated socialization mechanism into vertical and lateral mechanism. Training courses, standardized training materials (Pratt, 2000), and coaching activities (Msweli-Mbanga, 2001; Pratt, 2000; Pratt & Rosa, 2003) are categorized as vertical socialization. Conferences or seminars for experience sharing, (Bhattacharya & Mehta, 2000;

Croft & Woodruffe, 1996; Msweli-Mbanga, 2001) and home party (Msweli-Mbanga, 2001; Pratt, 2000) can be categorized as the lateral socialization. Socialization mechanism provides various activities facilitating direct or indirect effects on knowledge diffusion. As conceived by the social comparison theory, the interplays between members help to create the opportunity for recipients to have self-evaluation which improves knowledge diffusion (Hornstein, Fisch & Holmes, 1968). The social influence theory also posited a similar argument that people within a society change and are changed by others (Milgram, 1983). Corporate socialization mechanism (Björkman, et al., 2004), training (Hatch & Dyer, 2004) were found to have positive relationship with the knowledge diffusion. Thus:

> The vertical and lateral socialization activities affect the level of knowledge diffusion

Language in social context focuses on the organization specific language such as short form terms, slangs, and jargons (Chao, et al., 1994; King & Sethi, 1998; Klein & Weaver, 2000; Korte, 2009; Taormina, 2004). Language is used to conceptualize knowledge (Nonaka & Takeuchi, 1995) and makes recipients achieve the right understanding of internal communication (Fogarty & Dirsmith, 2001; Klein & Weaver, 2000). Shared language improves the recipients' ability of recognizing the knowledge and also enables the source to well codify and narrate the knowledge (Cohen & Levinthal, 1990; Keller, 2002). Thus, the following relationship is constructed:

> The shared language affects the level of knowledge diffusion.

Relationships Between Determinants

Social support and willingness of source reduce the stress of the recipient which in turn increases interaction and communication between participants and strengthen the social tie (Nucholls, et al., 1972). Thus, the following relationship is constructed:

> Source capability has influence on tie strength.

It is found that training activities improves participant's capability (Boland, et al., 2001; Lyles & Salk, 1996). The social influence theory posits that people are influenced by others in the society (Milgram, 1983) supports the positive relationship between socialization mechanism and participant's capability. Thus, the following relationships are formed:

Vertical socialization mechanism improves source and recipient capabilities; Lateral socialization mechanism improves source and recipient capabilities.

For specific language, Klein & Weaver (2000) found that the same language helps members to have the right communication and thus increases tie strength. Thus, the following relationship is derived:

Shared language improves tie strength.

Age Stages

It is a common perception to us that age and working capability are related. However, studies conclude that the relationship is insignificant before age 60 and posit that the chronological age alone is insufficient to decide a person's performance (Kreps, 1977). However, there is a different finding that states that difference can also be found for those aged under 65 (Phillips & Sternthal, 1977). In practice, the manager even perceives that 40 is the age where capability goes downhill (Kreps, 1977). The way of appropriating knowledge has been found to be different between younger and older persons (Finkelstein, Kulas, & Dages, 2003). Age changes the attitude to external factors and the way of communication (Peterson, Rhoads, & Bobby, 2001; Zenger & Lawrence, 1989), on the way of processing information (Phillips & Sternthal, 1977) and on the way of exhibition. The multilevel marketing businesses MLMs consist of agents from teenagers to the older adults. The knowledge used in MLM is not sophisticated technology and requests no creativity but replication, thus, it is plausible that the age factor should not significantly affect knowledge transfer within the context. Thus, the following hypothesis is proposed:

Hypothesis: There is no difference between age stages in the level of knowledge diffusion.

Based on the preceding explorations, the research framework is drawn in Figure 1.

Figure 1: Research Framework
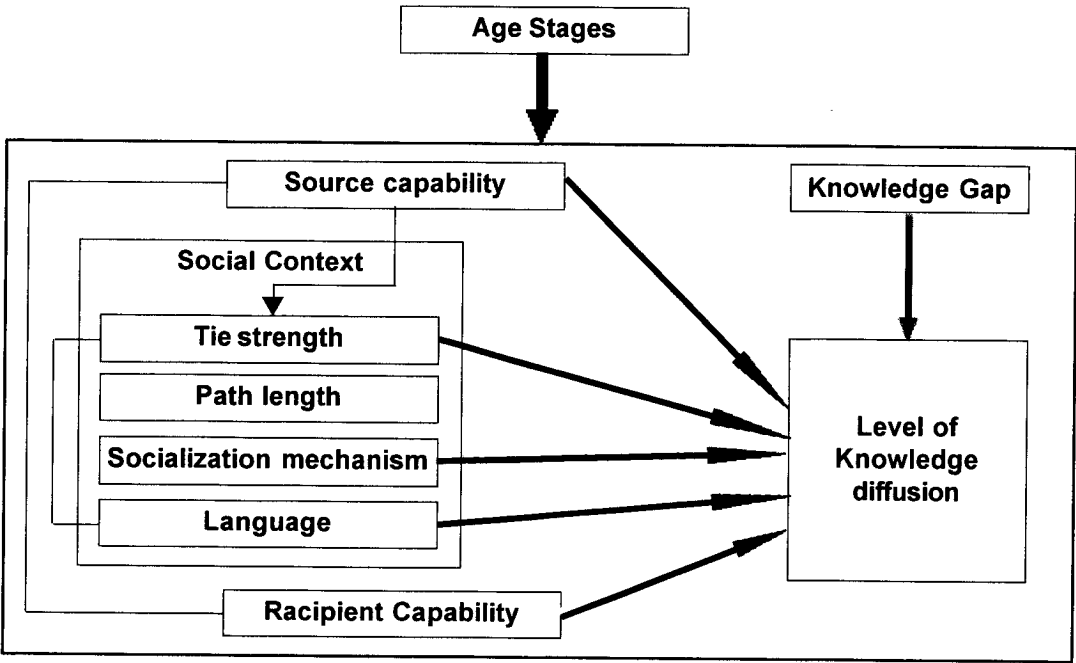
RESEARCH METHODOLOGY

The study uses multigroup structural equation modeling and Fisher's z-test to test the age differences in causal relationships between antecedents and the level of knowledge diffusion. Respondents were the upline registered MLM agents that had been focusing on promoting tangible goods and maintaining an active status as managers, directors, or team leaders functioning in the MLM. Using quota sampling process (Malhotra, 2007) 480 samples (Yamane, 1967; Malhotra, 2007) was collected from seven major MLMs.

DATA ANALYSIS AND FINDINGS

There are 147 junior young adults (YA) age less than 30, 125 senior young adults (SYA) age between 31 to 39, and 124 mid/late adults (MLA) aged above 40. Factor analysis identified and combined measure items into seven latent constructs; each yielded the Cronbach's alpha of .853 to .970, sufficient for the .7 requirement (Hair, et al., 2006)

Multigroup Path Analysis for Age Dtages Differences

By running structural equation modeling analysis, Table 1 reports the multigroup path analysis output of each age stage. Table 2 reports the pairwise comparisons on age group parameter differences. Differences were found between young adult (YA) and senior young adult (SYA) in knowledge diffusion as shown in Table 2 which is the relationship between vertical socialization and recipient capability (YA beta = .903 and SYA beta = .826). The difference is significant (critical ratio C.R. = -2.510 > ±1.96) and indicates that the YAs' vertical socialization accounts for more influence than the SYAs on the recipient capability. There are two differences between YA and MLA. First, the relationship between vertical socialization and source capability (YA beta = .921 and MLA beta = .815) the difference is significant (critical ratio C.R. = -2.012 > ±1.96) indicates that YAs' vertical socialization accounts for more influence than MLAs on the source capability. Second, the relationship between vertical socializa-

tion and recipient capability (YA beta = .903 and MLA beta = .655) the difference is significant (C.R. = -3.928 > 1.96) and that indicates that YAs' vertical socialization accounts for more influence than the MLAs on the recipient capability. There is a difference between SYA and MLA in the relationship between knowledge gap and knowledge diffusion (MLA beta = .372 and SYA beta .062, no sig.). The difference is significant (C.R. = -2.757 > ±1.96) indicated that MLAs' knowledge gap accounts for more influence than SYAs on the knowledge diffusion.

In comparing joint influence, Table 3 reports square multiple correlation coefficient (SMCC) differences among three age stages. In comparing YA and SYA, Fisher's Z-test exhibits the influence of YA, that yields 85.6% variance of source capability that is accounted for by the joint influence of lateral and vertical socialization, and is significantly greater than SYA respondents that yield SMCC = 74.4% at p<.01 level. Similarly, for recipient capability, YA yields 81.5% variance of recipient capability that is accounted for by the joint influence of lateral and vertical socialization, and is significantly greater than ± SYA respondents that yield SMCC = 63.7% at p<.01 level. The differences between YA and MLA are also reported in a similar trend on the relationship between socialization mechanism and participant capabilities. Fisher's Z-test exhibits the influence of YA, that yields 85.6% variance of source capability is accounted for by joint influence of lateral and vertical socialization which is significantly greater than MLA respondents that yield SMCC = 64.6% at p<.001 level. For recipient capability, YA yields 81.5% variance of recipient capability that is accounted for by the joint influence of lateral and vertical socialization, and is significantly greater than MLA respondents that yield SMCC = 46.2% at p<.001 level. The difference is also revealed between SYA and MLA that SYA yields 63.7% variance of recipient capability that is accounted for by the joint influence of lateral and vertical socialization, and is significantly greater than MLA respondents that yield SMCC = 46.2% at p<0.01 level. The rest of the joint influences among age stages are operated similarly.

The explanation for the phenomena of differences found among age groups might be due to the

Table 1: Multigroup Path Analysis of Each Age Stage

Regression Weights: (Variant model)

IDV	DV	Age <30		Age 30-39		Age >40	
		.P	Beta	P	Beta	P	Beta
Source capability (SC)	KD	0.050	0.823	0.656	-0.101	0.813	-0.047
Recipient capability (RC)	KD	0.890	-0.037	**0.003**	**0.378**	**0.009**	**0.260**
Knowledge gap	KD	**0.010**	**0.219**	0.366	0.062	***	**0.372**
Tie strength (TS)	KD	0.620	0.096	0.207	0.201	0.053	0.319
Lateral socialization (LSM)	KD	***	**0.331**	0.062	0.154	**0.021**	**0.171**
Vertical socialization (VSM)	KD	0.663	-0.228	0.172	0.319	0.846	0.033
Language (LN)	KD	0.132	-0.178	0.213	-0.092	0.827	-0.019
Path length (PL)	KD	0.364	0.072	0.441	0.05	0.062	0.127
Language	TS	**0.022**	**0.159**	0.085	0.103	**0.004**	**0.201**
Source capability (SC)	TS	***	**0.775**	***	**0.833**	***	**0.758**
VSM	SC	***	**0.921**	***	**0.908**	***	**0.815**
VSM	RC	***	**0.903**	***	**0.826**	***	**0.655**
LSM	SC	**0.022**	**-0.131**	0.227	-0.088	0.683	-0.030
LSM	RC	0.993	0	0.894	-0.01	0.490	0.057
LSM; VSM →	SC		0.856		0.744	0.646	
SC; LN →	TS	**SMCC**	0.753		0.769	0.736	
LSM; VSM →	RC		0.815		0.637	0.462	
All joint →	KD		0.538		0.671	0.611	

IDV: independent variable; DV dependent variable; KD: knowledge diffusion;

Table 2: Pairwise Comparisons Between Age Groups

Pairwise Parameter Comparisons Critical Ratios for Differences between Parameters (Variant model)

IDV	SC	RC	KWG	TS	PL	LSM	VSM	LN	SC	LN	VSM		LSM	
DV				KD						TS	SC	RC	SC	RC
Groups			Young adult (YA) vs. Senior Young Adult (SYA)											
C.R.	-1.914	1.601	-1.278	0.481	-0.148	-0.202	0.954	0.609	0.441	-0.740	-0.868	-2.510	-0.113	0.040
Groups			Young adult vs. Mid/Late Adult (MLA)											
C.R.	-1.883	1.069	1.294	0.941	0.553	-0.443	0.472	1.153	-1.172	0.001	**-2.012**	**-3.928**	0.680	0.772
Groups			Senior Young adult vs. mid/late Adult											
C.R.	0.208	-1.017	**2.757**	0.487	0.756	-0.152	-1.050	0.721	-1.732	0.850	-1.060	-1.483	0.610	0.584

C.R.: critical ratio

Table 3: Fisher's Z-tests Among Age Stages

IDV	→ DV	R²			Beta			Sample	Fisher's z-test					
		YA	SYA	MLA	YA	SYA	MLA	size	YA-SYA		YA-MLA		SYA-MLA	
									z	p	z	p	z	p
VSM+LSM	→ SC	0.856	0.744	0.646	0.925	0.863	0.804		2.61	0.009	4.02	0.000	1.57	0.119
SC+LN	→ TS	0.753	0.769	0.736	0.868	0.877	0.858	YA=126	-0.31	0.757	0.30	0.764	0.62	0.472
VSM_LSM	→ RC	0.815	0.637	0.462	0.903	0.820	0.680	SYA=146	2.68	0.008	5.14	***	2.67	0.008
All deter	→ KD	0.538	0.671	0.611	0.733	0.819	0.782	MLA=124	-1.77	0.077	-0.89	0.374	0.85	0.395

VSM: vertical socialization mechanism; LSM: lateral socialization mechanism; SC: source capability; LN: language; All deter.: all determinants

subtle changes in age differences in the way of appropriating knowledge (Finkelstein, et al., 2003), the way of communication (Peterson, et al., 2001; Zenger & Lawrence, 1989) and the way of information processing (Phillips & Sternthal, 1977). Furthermore, as proposed, the standardized knowledge system of MLM might also be a factor that limits the difference between age groups. Thus for practitioners, if other factors remain constant, there is no age stage difference in the diffusion of knowledge.

CONCLUSIONS AND RECOMMENDATIONS

There is no overall knowledge diffusion difference among three age stages except for some subtle differences. The vertical socialization activities improve both source and recipient capability for young adults rather than the mid/late adults but improve more recipient capability in young adults than senior young adults. Another difference is the influence on knowledge gap between senior young adult and mid/late adults where the mid/late adults improve more when they perceive the knowledge gap is widened. The joint influences of socialization mechanisms on source capability are different between two age paired comparisons of YA vs. SYA and YA vs. MLA where the younger the better the socialization activities could improve the source capability. Younger age stage agents improve more on recipient capability through socialization activities than older age stage agents.

In summary, age stage does not affect on the overall knowledge diffusion even though younger personnel learn faster through activities. However, as long as the mid/late personnel perceive the knowledge gap is enlarged, the effort will be ignited and diffusion will catch up. Thus, the practitioners, especially the human resource related functions officers, can treat all age stage personnel as the same in assigning tasks for the job functions that are related to knowledge transfer.

LIMITATION OF THE RESEARCH AND FURTHER RESEARCH

This study uses MLM as the population. The outcome might not generalized to all industries. The knowledge gap in this study adapted a subjective measure, however, if the study context is available for processing, a controlled experiment measure will be more beneficial. For multigroup analysis of knowledge diffusion, little has been done in previous studies. This arena could provide grounds for a vast number of future studies.

REFERENCES

Baker III, H. E., & Feldman, D. C. (1991). Linking organizational socialization tactics with corporate human resource management strategies. *Human Resource management Review*, 1(3), 193-202.

Bandura, A. (1977). *Social learning theory: Prentice Hall*.

Barnett, E., & Casper, M. (2001). A definition of "Social environment", 91(3). *American Journal of Public Health* 91(3), 465.

Berman, S. L., Down, J., & Hill, C. W. L. (2002). Tacit knowledge as a source of competitive advantage in the national basketball association. *The Academy of Management Journal*, 45(1), 13-31.

Bhattacharya, P., & Metha, K. K. (2000). Socialization in the network marketing organizations: Is it cult behavior? *Journal of Socio-Economics*, 29(4), 361-374.

Björkman, I., Barner-Rasmussen, W., & Li, L. (2004). Managing knowledge transfer in MNCs: The impact of headquarters control mechanisms. *Journal of International Business Studies*, 35(5), 443-455.

Boland(Jr.), R. J., Singh, J., Salipante, P., Aram, J. D., Fay, S. Y., & Kanawattanachai, P. (2001). Knowledge representations and knowledge transfer. *The Academy of Management Journal*, 44(2), 393-417.

Chao, G. T., O'Leary-Kelly, A. M., Wolf, S., Klein, H. J., & Gardner, P. D. (1994). Organizational socialization: Its content and consequences. *Journal of Applied Psychology*, 79(5), 730-743.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and

innovation. *Administrative Science Quarterly*, 35(1), 128-152.

Croft, R., & Woodruffe, H. (1996). Network marketing: The ultimate in international distribution. *Journal of Marketing Management*, 19, 201-214.

Cross, R., & Sproull, L. (2004). More than an answer: information relationships for actionable knowledge. *Organization Science*, 15(4), 446-462.

Dewey, J. (1998). *The Essential Dewey: Pragmatism*, education, democracy (Vol. 1): Indiana University Press.

Doring, T., & Schnellenbach, J. (2006). What do we know about geographical knowledge spillovers and regional growth?: A survey of the literature. Regional Studies, 40(3), 375-395.

Dosi, G. (1988). Sources, procedures, and microeconomic effects of innovation. *Journal of Economic Literature*, 26(3), 1120-1171.

Earle, L., & Earle, T. (1999). Social context theory. *South Pacific Journal of Psychology*, 11(2), 1-12.

Feder, G., & Slade, R. (1985). The role of public policy in the diffusion of improved agricultural technology. *American Journal of Agricultural Economics*, 67(2), 423-428.

Finkelstein, L. M., Kulas, J. T., & Dages, K. D. (2003). Age differences in proactive newcomer socialization strategies in two populations. *Journal of Business and Psychology*, 17(4), 473-502.

Fogarty, T. J., & Dirsmith, M. W. (2001). Organizational socialization as instrument and symbol: An extended institutional theory perspective. *Human Resource Development Quarterly*, 12(3), 247-266.

Graham, T. (1852). *Elements of Chemistry: including the applications of the science in the arts* (2nd ed.). Philadelphia: Blanchard and Lea.

Granovetter, M. S. (1973). The strength of weak ties. *The American Journal of Sociology*, 78(6), 1360-1380.

Grant, R. M. (1996). Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization Science*, 7(4), 375-387.

Gupta, A. K., & Govindarajan, V. (2000). Knowledge flows within multinational corporations. *Strategic Management Journal*, 21(4), 473-496.

Gavrilov, L. A., & Heuveline, P. (2003). Aging of population. In P. Demeny & G. McNicoll (Eds.), *The Encyclopedia of Population*. New York: Macmillan.

Hair, J. F. J., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate Data Analysis* (6th ed.): Peason Education LTD.

Hansen, M. T. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44(1), 82-111.

Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, 25(12), 1155-1178.

Hornstein, H., Fisch, E., & Holmes, M. (1968). Influence of a model's feelings about his behavior and his relevance as a comparison other on observers' helping behavior, *Journal of Personality and Social Psychology*, 10, 220-226.

Hovland, C. I., & Weiss, W. (1951). The influence of source credibility on communication effectiveness. *The American Association for Public Opinion Research*, 15(4), 635-650.

Keller, W. (2002). Geographic localization of international technology diffusion. *The American Economic Review*, 92(1), 120-142.

King, R. C., & Sethi, V. (1998). The impact of socialization on the role adjustment of information system professionals. *Journal of Management Information System*, 14(4), 195-217.

Klein, H. J., & Weaver, N. A. (2000). The effectiveness of an organizational-level orientation training program in the socialization of new hires. *Personnel Psychology*, 53, 47-66.

Korte, R. E. (2009). How newcomers learn the social norms of an organization: A case study of the socialization of newly hired engineers. *Human Resource Development Quarterly*, 20(3), 285-306.

Kreps, J. M. (1977). Age, work, and income. *Southern Economic Journal*, 43(4), 1423-1437.

Lee, D. M. S., & Allen, T. J. (1982). Integrating new technical staff: Implications for acquiring

new technology. *Management Science*, 28(12), 1405-1420.

Levin, D. Z., & Cross, R. (2004). The strength of weak ties you can trust: The mediating role of trust in effective knowledge transfer. *Management Science*, 50(11), 1477-1490.

Lyles, M. A., & Salk, J. E. (1996). Knowledge acquisition from foreign parents in international joint ventures: An empirical examination in the hungarian context. *Journal of International Business Studies*, 27(5), 877-903.

Madsen, T. L., Mosakowski, E., & Zaheer, S. (2003). Knowledge retention and personnel mobility: The nondisruptive effects of inflows of experience. *Organization Science*, 14(2), 173-191.

Malhotra, N. K. (2007). *Marketing Research An Applied Orientation* (5th ed.). Upper Saddle River: Pearson Education.

Marsden, P. V., & Campbell, K. E. (1984). Measuring tie strength. *Social Forces*, 63(2), 482-501.

Milgram, S. (1983). *Obedience to Authority: An Experimental View*. New York: Harper/Collins.

Miller, D. J., Fern, M. J., & Cardinal, L. B. (2007). The use of knowledge for technologyical innovation within diversified firms. *Academy of Management Journal*, 50(2), 308-326.

Minbaeva, D. B. (2007). Knowledge transfer in multinational corporations. *Management International Review*, 47(4), 567 - 593.

Morone, P., & Taylor, R. (2004). Knowledge diffusion dynamics and network properties of face-to-face interactions. *Journal of Evolutionary Economics*, 14(3), 327-351.

Msweli-Mbanga, P. (2001). Modelling distributor performance in network marketing organizations. *South African Journal of Business Management*, 32(3), 33-40.

Murray, S. R., & Peyrefitte, J. (2007). Knowledge type and communication media choice in the knowledge transfer process. *Journal of Managerial Issues*, 19(1), 111-133.

Nelson, R. R., & Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge: Harvard University Press.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company*: how Japanese companies create the dynamics of innovation: Oxford University Press.

Nucholls, K. B., Callell, J., & Kaplin, B. H. (1972). Psycholsocial assets, life crisis and the prognosis of pregnancy. *American Journal of Epidemiology*, 95, 431-441.

Peterson, D., Rhoads, A., & Bobby, C. V. (2001). Ethical beliefs of business professionals: A study of gender, age and external factors. *Journal of Business Ethics*, 31(3), 225-232.

Phillips, L. W. & Sternthal, B. (1977). Age differences in information processing: A perspective on the aged consumer. *Journal of Marketing Research*, 14(4), 444-457.

Pratt, M. G. (2000). The good, the bad, and the ambivalent: Managing identification among Amway distributors. *Administrative Science Quarterly*, 45(3), 456-493.

Pratt, M. G., & Rosa, J. A. (2003). Transforming work-family conflict into commitment in network marketing organizations. *The Academy of Management Journal*, 46(4), 395-418.

Reagans, R., & McEvily, B. (2003). Network structure and knowledge transfer: The effects of cohesion and range. *Administrative Science Quarterly*, 48(2), 240-267.

Regev, S., Shtub, A., & Ben-Haim, Y. (2006). Managing project risks as knowledge gaps. *Project Management Journal*, 37(5), 17-25.

Searle, J. R. (1995). *The Contruction of Social Reality*. London: Penguin Press.

Shannon, C. E. (1948). A mathematical theory of communication. *The Bell System Technical Journal*, 27, 379-423.

Shariq, S. Z. (1999). How does knowledge transform as it is transferred? Speculations on the possibility of a cognitive theory of knowledgescapes. [Conceptual Paper]. *Journal of Knowledge Management*, 3 (4), 243 - 251.

Simonin, B. L. (1999). Ambiguity and the process of knowledge transfer in strategic alliances. *Strategic Management Journal*, 20(7), 595-623.

Simonin, B. L. (2004). An empirical investigation of the process of knowledge transfer in international strategic alliances. *Journal of International Business Studies*, 35(5), 407-427.

Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*, 17, 27-43.

Taormina, R. J. (2004). Convergent validation of two measures of organizational socialization. *International Journal of Human Resource Management*, 15(1), 76-94.

Van Maanen, J., & Schein, E. H. (1979). Toward a theory of organizational socialization. *Research in Organizational Behavior*, 1, 209-264.

Williams, C. (2007). Transfer in context: replication and adaptation in knowledge transfer relationships. *Strategic Management Journal*, 28(9), 867-889.

Zenger, T. R., & Lawrence, B. S. (1989). Organizational demography: The differential effects of age and tenure distributions on technical communication. *The Academy of Management Journal*, 32(2), 353-376.

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THE DETERMINANTS OF CROSS-CULTURAL ADJUSTMENT: A CASE OF JAPANESE EXPATRIATES IN THAILAND

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บทคัดย่อ

การบริหารทรัพยากรมนุษย์ระดับโลกมีบทบาทสำคัญอย่างยิ่งในการกำหนดความสำเร็จของบริษัทข้ามชาติ โดยการส่งเสริมและสนับสนุนกระบวนการจัดส่งพนักงานข้ามชาติ ซึ่งการปรับตัวข้ามวัฒนธรรมของพนักงานข้ามชาติ เป็นแรงขับเคลื่อนประการสำคัญที่ทำให้เกิดการขยายตัวของบริษัทข้ามชาติและการจัดส่งพนักงานข้ามชาติให้ประสบ ความสำเร็จ ในแต่ละปีมีจำนวนพนักงานข้ามชาติที่เข้ามาทำงานในประเทศไทยเพิ่มขึ้น ซึ่งพนักงานข้ามชาติที่เข้ามา ทำงานในประเทศไทยมากที่สุดคือพนักงานชาวญี่ปุ่น ในการศึกษาครั้งนี้เป็นการสำรวจตัวแปรสำคัญที่ก่อให้เกิด การปรับตัวข้ามวัฒนธรรมของพนักงานข้ามชาติชาวญี่ปุ่นที่เข้ามาทำงานในประเทศไทย โดยมีตัวแปรต้นคือ ลักษณะ การเรียนรู้ ความสอดคล้องของวัฒนธรรมองค์กร ประสิทธิภาพของการฝึกอบรมข้ามวัฒนธรรม ผู้ให้คำปรึกษา และ ข้อมูลเชิงประชากร ตัวแปรที่ส่งผลร่วมสำคัญคือระดับการปรับตัวของคู่สมรสในสภาพแวดล้อมของประเทศเจ้าบ้าน วัตถุประสงค์ของการทำให้เกิดความคิดรวบยอดของแบบจำลองคือการสร้างความเข้าใจกลไกที่จำเป็นในการเอาชนะ ผลกระทบจากระยะห่างทางวัฒนธรรมระหว่างประเทศไทยและญี่ปุ่น

การศึกษาเชิงปริมาณครั้งนี้เป็นการสำรวจโดยใช้แบบสอบถาม โดยสำรวจพนักงานข้ามชาติชาวญี่ปุ่นที่ทำงาน บริษัทสาขาในประเทศไทยจำนวนทั้งสิ้น 412 คน เครื่องมือทางสถิติติที่ใช้ในการวิเคราะห์การศึกษาครั้งนี้ คือ โมเดล สมการโครงสร้าง (Structural Equation Modeling: SEM) ร่วมกับการวิเคราะห์ความแปรปรวน (Analysis of Variance: ANOVA) ผลการศึกษาพิสูจน์ให้เห็นว่าลักษณะการเรียนรู้ของปัจเจกบุคคล ประสิทธิภาพของการฝึกอบรมข้าม วัฒนธรรม และการปรับตัวของคู่สมรสเป็นตัวประมาณการหลักของพนักงานข้ามชาติชาวญี่ปุ่นในการปรับตัวข้าม วัฒนธรรมในประเทศไทย รวมทั้งการให้คำปรึกษาและกลุ่มอายุยังสามารถทำให้เกิดความแตกต่างอย่างมีนัยยะสำคัญต่อ ระดับการปรับตัวข้ามวัฒนธรรมโดยรวม บริษัทข้ามชาติญี่ปุ่นจึงควรจัดกระบวนการคัดเลือก การเตรียมตัว และ การสนับสนุนอย่างเหมาะสม บนพื้นฐานของการบริหารทรัพยากรมนุษย์อย่างมีประสิทธิภาพของบริษัทข้ามชาติ ญี่ปุ่นแก่พนักงานข้ามชาติชาวญี่ปุ่นและคู่สมรส

Abstract

Global human resource management plays an important role in determining the success of MNCs by facilitating the process of expatriation. Cross-cultural adjustment of expatriates is the major driving force for successful international expansion and expatriation. Each year, an increasing number of expatriates come to Thailand to take up international assignments of which the largest number is Japanese expatriates. This study examines crucial antecedents of cross-cultural adjustment of the Japanese expatriates in Thailand. The independent variables include learning characteristics, congruency of organizational cultures, effectiveness of cross-cultural training, mentor programming and demographic profile. An important moderator in the process is spouses' degree of adjustment in the environment of the host country. The conceptualization of this model is aimed at understanding the mechanisms required to overcome the impacts of cultural distance between the two countries; Thailand and Japan.

This quantitative study was conducted using questionnaire surveys. A total of 412 Japanese expatriates working in subsidiaries in Thailand were surveyed. The statistical treatments employed were structural equation modeling (SEM) and Analysis of Variance (ANOVA). The findings demonstrated that indi-

vidual learning characteristics, effectiveness of cross-cultural training, and spouse adjustment were the major predictors of the Japanese expatriates' cross-cultural adjustment in Thailand. In addition, mentor programs and age groups could also create significant difference on the overall degree of cross-cultural adjustment. The expatriates and spouses should be provided with proper processes of selection, preparation, and support based on effective human resource management practices of their Japanese multinational corporations.

INTRODUCTION

Multinational corporations (MNCs) establish subsidiaries in the international arena in order to sustain their competitive advantage (Moran, Palmer & Borstorff, 2007) in the ever changing environment of the business world (Haile, Jones & Emmanuel, 2007). Technological advancements, such as telecommunication, transportation, network system, infrastructure, and government liberalization, create strong networks that serve to link countries worldwide as well as lower national borders. These factors are powerful forces that stimulate international expansion. In order for these international expansions to be successful, expatriates are key success factors (Bonache, Brewster & Suutari, 2001). Expatriates with effective international capabilities, including the ability to adapt to different cultures and fluency in foreign languages, are always in demand (Black & Mendenhall, 1989; Haile et al., 2007). An expatriate's premature return has a significant impact on the return on investment of the international assignment (McNulty & Tharenou, 2004). As a consequence, the issue of expatriates' international adjustment has garnered much attention from scholars, because adjustment is the catalyst in determining expatriate performance in the host country.

International human resource management strategies are critical determinants of success for multinational corporations to operate within the boundary-free international business markets (Black, 1990; Black & Mendenhall, 1989; Black, Mendenhall & Oddou, 1991; Colakoglu & Caligiuri, 2008; Caligiuri, Phillips, Lazarova, Tarique, & Burgi, 2001; Littrell, Salas, Hess, Paley & Riedel, 2006). There is also growing evidence that effective management of expatriates is a crucial determinant for the success or failure of international investments (Bonache et al., 2001).

The demand for effective and qualified expatriates to operate in the overseas marketplace has increased significantly with the boom in international-

ization (Bolino, 2007; Dowling, Festing & Engle, 2008). Unfortunately, MNCs have been severely plagued by the persistent and recurring problems with a significantly high premature return rate of expatriates (Mendenhall & Oddou, 1985; Haile et al., 2007; Tung, 1987) that creates explicit as well as opportunity costs. The focus of most MNCs is on the expatriates' technical competencies to operate successfully on international assignments, however, cross-cultural knowledge has received scant attention.

Despite the recent instabilities, Thailand is a popular location for Foreign Direct Investment (FDI) and has been ranked 14th in the FDI confidence index (Swierczek & Onishi, 2003, p. 188). Multinational corporations together with their expatriates are increasingly important for the development of Thailand in gaining a competitive advantage against other countries (Clegg & Gray, 2002). As such, the issues of expatriates requires the attention of both practitioners and researchers.

Thailand is an emerging economy with the availability of incentives for indirect investment and a robust supply network (Swierczek & Onishi, 2003). It is one of the most attractive destinations for the Japanese direct investment because it is rich in resources with a plentiful labor supply. Japanese companies invest in Thailand in order to sustain and enhance their manufacturing network systems together with opportunities for export (Swierczek & Onishi, 2003). They also see Thailand as one of their potential markets. The total amount of Japanese Foreign Direct Investment (FDI) in Thailand is the indicator of the importance of Japanese investments in the Thai economy. In 2010, Thailand's Board of Investment (BOI) reported that Japanese FDI in Thailand accounted for 100,305.4 million baht or 20.24% of overall FDI's in Thailand with 342 projects approved or 21.84% of total projects (BOI, 2010). In 2010, there were more than 7,000 Japanese companies in Thailand (Embassy of Japan in Thailand, 2010). They play a significant role in the Thai

economy and create huge employment opportunities for Thai workers. Hence, it is important to understand Japanese expatriates' cross-cultural adjustment in the Thai context. This will benefit not only the Japanese multinational corporations in Thailand and their Japanese expatriates but also the Thai economy, employees and Thailand as a whole.

This study is aimed to examine the antecedents of cross-cultural adjustment of Japanese expatriates in Thailand. The independent variables included learning characteristics, congruency of organizational cultures, effectiveness of cross-cultural training, mentor programming and demographic profile. There was also an important moderator which was spouses' degree of adjustment in the environment of the host country. The conceptualization of this model was aimed to understand the mechanisms required to overcome impacts of cultural distance between Thailand and Japan. Hence, this model would provide effective practical mechanisms for Japanese MNCs in Thailand to facilitate their expatriates' cross-cultural adjustment.

This paper drew on the commonalities and gaps among prior research studies. The majority of empirical researches on expatriates' cross-cultural adjustment have focused on separate areas such as the selection of the right expatriate, cross-cultural training, cross-cultural learning, spouse and family issues, etc. This re-conceptualized them into a single framework, thus providing a more practical view of the variables.

THEORETICAL UNDERPINNING OF CROSS-CULTURAL ADJUSTMENT

This section presents the theoretical framework that was used in this study to examine cross-cultural adjustment of Japanese expatriates in Thailand. This framework was modified from the comprehensive model of Black et al. (1991). The reason for this modification was to make it a theoretical framework that could better capture the essence of cross-cultural adjustment.

Figure 1: Theoretical Framework of Cross-Cultural Adjustment
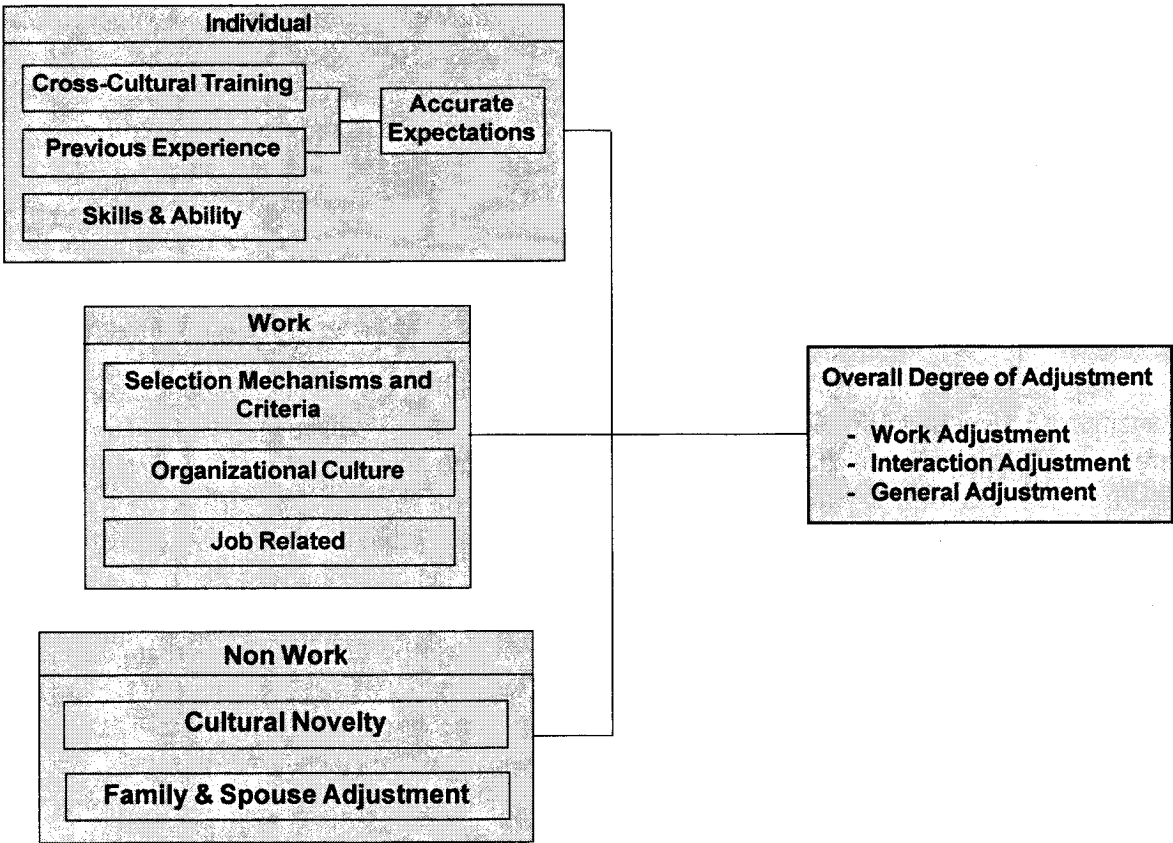
Modified From: Black, J. S., Mendenhall, M., & Oddou, G. (1991). Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. The Academy of Management Review, 16(2), 291-317.

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Black et al. (1991)'s model provides an overall abstraction of concepts which determine expatriates' cross-cultural adjustment in host countries. Instead of separating anticipatory adjustment and in-country adjustment that has five main variables, this study combined them into one big picture that could effectively explain the core antecedents of cross-cultural adjustment. Three main factors contributed to the overall degree of expatriate adjustment, which included individual factors, work factors and non-work factors. The individual factors were personal factors of expatriates which were cross-cultural training, previous experiences and their skills and abilities. Retaining the concept of Black et al. (1991), cross-cultural training and previous experiences were to examine accurate expectations of expatriates. The second core variable was the work factors which include selection mechanisms and criteria, job related factors and the concept of organizational culture. Lastly, non-work factors included two important expatriation factors, cultural novelty and family and spouse adjustment.

Conceptual Model and Hypotheses

This section illustrates the research framework of this study. Figure 2 is the proposed conceptual framework that presents the determinants of cross-cultural adjustment (CCA).

In comparison with prior empirical models, this research model incorporates all important variables that are crucial to the cross-cultural adjustment of expatriates. Basically, the framework had five core independent variables which include learning characteristics, congruence of organizational culture, cross-culture training effectiveness, mentors, and the demographic profile of expatriates (i.e. age, number of children, educational level, prior international experience, and tenure of current assignment). Apart from the independent variables, spouse's adjustment was proposed as the moderator, because cultural distance implied encountering barriers in the international context which impacts both expatriates and their spouses. Spouses would also face problems living in a new culture and this could significantly deter expatriate adjustment.

Figure 2: Conceptual Framework of this Study
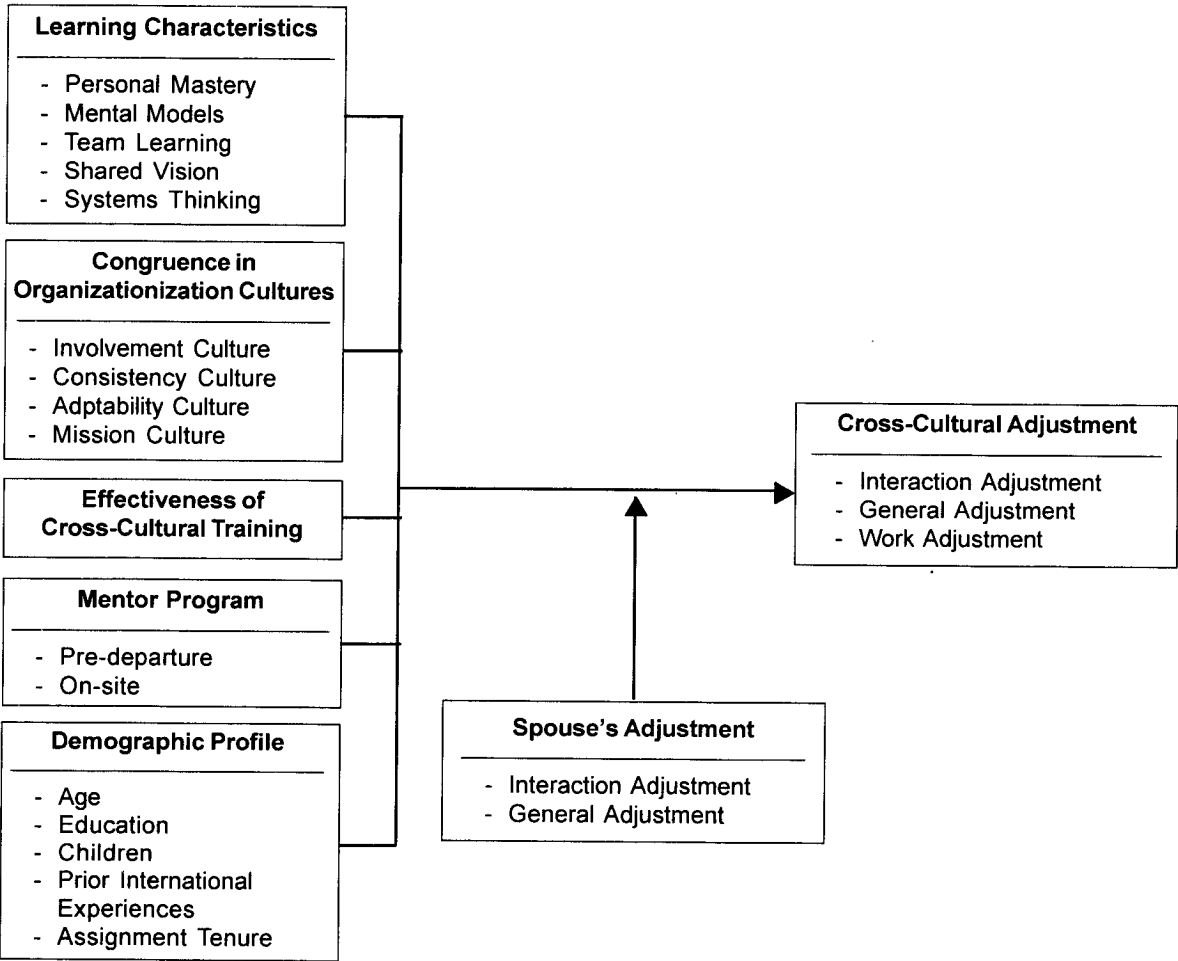
The independent variables in this study are proposed to assist in handling the problems of cultural distance between home and host countries. Expatriates who possess appropriate individual factors, work and non-work factors are able to experience a higher degree of cross-cultural adjustment. Expatriates who have learning characteristics, receiving effective cross-cultural training and holding previous experiences (i.e. individual factors) would have a higher degree of adjustment. Those expatriates, who are selected using appropriate criteria, work in similar organizational culture and are well guided/mentored in both host and home countries would be more successful in their cross-cultural adjustment. Non-work factors of cultural novelty and spouse's adjustment are also crucial in determining the degree of adjustment. Based on the study's conceptual framework illustrated above, the magnitude of relationships on each path will be discussed via the following hypotheses.

Hypotheses

Learning characteristic of Japanese expatriates was proposed to positively impact the degree of their cross cultural adjustment in Thailand. This implies that if the expatriates possess the characteristics of learning, they would be able to adjust themselves smoothly into the host countries' business and living environment.

In general, expatriates' learning characteristics is a personal quality that helps them to gain new knowledge which would assist their degree of adjustment under the novel context of Thailand (as a host country). Therefore, it is crucial for Japanese expatriates to possess learning oriented characteristics, especially if they occupy top positions in the subsidiaries as Heckman & Wageman (cited in King, 2002) argued that effective management program is all about learning orientation. Therefore, these led to the derivation of the first hypothesis in this study:

H1: Learning characteristics (including personal mastery, mental model, team-learning, share vision and systems thinking) are positively related to cross-cultural adjustment of Japanese expatriates working in Thailand.

Personal mastery is a learning characteristic of

an individual with the "focus on developing one's own proficiency" (p. 263) with the ultimate objective of clarifying personal vision that extends into behavior of doing positive things to achieve the desired goals (Flood, 1998). This characteristic helps expatriates to overcome difficulties in their international assignment and could enhance their ability to achieve a high degree of cross-cultural adjustment. This led to the derivation of hypothesis 1.1 of this study:

H1.1: Personal mastery is positively related to cross-cultural adjustment of Japanese expatriates working in Thailand.

Mental model is another element of learning proposed by Senge (1990). Expatriates who possess this characteristic would have a well conceived structure in their mind. This would help them shape the way they perceive the world which finally leads to their actions (Flood, 1998). Therefore, expatriates who can understand and conceptualize their current international situation under the host country environment are expected to adjust themselves better than those who have lower level of mental model characteristic. This led to the derivation of hypothesis 1.2 in this study:

H1.2: Mental model is positively related to cross-cultural adjustment of Japanese working in Thailand.

Team learning is expected to have a positive relationship with overall degree of cross-cultural adjustment because it aims at aligning people and creating synergy (Flood, 1998). Working and living happily in the novel environment require expatriates to learn from their teammates and associates so they can adjust themselves with the local employees and people and host country's environment. If the expatriates can align themselves with co-workers or local subordinates, cultural differences' effect would be a reduced. This led to the derivation of hypothesis 1.3 in this study:

H1.3: Team learning is positively related to cross-cultural adjustment of Japanese expatriates working in Thailand.

Shared vision refers to "shared operating values, a commonsense of purpose or the basic level of mutuality" (Flood, 1998, p. 265). Expatriates who possess this characteristic would commit themselves to the same vision as others in the organization. Shared vision is applicable not only at the organizational level but also the broader boundary of a community or even at the country level. Therefore, expatriates with a high level of shared vision would adjust themselves smoothly to the international environment of both work and living contexts. This led to the derivation of hypothesis 1.4 in this study:

H1.4: Shared vision is positively related to cross-cultural adjustment of Japanese expatriates working in Thailand.

Systematic thinking is very important to the overall degree of cross cultural adjustment as this element would impact expatriates in all aspects. Expatriates who have systematic thinking characteristic tend to see things as a whole. If expatriates have this learning characteristic, they would be able to understand the world as a pattern of interrelated actions (Flood, 1998; Senge, 1990), so they would be expected to manipulate their actions in order to achieve a high degree of cross-cultural adjustment during their international assignment. This led to the derivation of hypothesis 1.5 in this study:

H1.5: Systems thinking is positively related to cross-cultural adjustment of Japanese expatriates working in Thailand.

The second independent variable, perceived degree of organizational congruence, is proposed to have a positive relationship with cross-cultural adjustment. This means the higher the degree of similarity between headquarters and subsidiaries' organizational cultures, the higher the degree of cross-cultural adjustment of Japanese expatriates. Congruence in organizational cultures impact cross-cultural adjustment, because differences in these cultures will make the international assignment more difficult. As organizational culture refers to "the social or normative glue that holds an organization together" (Sirmon & Lane, 2004, p. 314), the challenges of the international assignment include interaction and working process among expatriates and local subordinates as well. Thus, the second hypothesis posited in this study was:

H2: Perceived congruence in organizational cultures between headquarters and its subsidiary is positively related to cross-cultural adjustment of Japanese expatriates in Thailand.

The third independent variable in the model is the effectiveness of cross-cultural training provided for expatriates. It is predicted that the more effective the cross-cultural training, the stronger the degree of Japanese expatriates' cross-cultural adjustment in the Thai context. The construct of cross-cultural training is also one of the individual factors in the theoretical framework presented in the above section. It has been claimed that many multinational corporations fail to provide effective cross-cultural training, the training received was often generic, there was insufficient pre-departure training and orientation for expatriates' families, and little emphasis was put on language training for expatriates (Caligiuri et al., 2001; Jun et al., 2001; Minter, 2008). Expatriates are required to have effective cross-cultural training programs for them to work efficiently and achieve a high degree of overall adjustment as well as successfully complete their foreign assignment. This led to the third hypothesis in this study:

H3: The effectiveness of cross-cultural training provided for Japanese expatriates is positively related to cross-cultural adjustment.

Mentor programming is another independent variable in the research framework to study expatriates' adjustment. It was expected that the more benefits Japanese expatriates get from a mentor program, the higher the degree of cross-cultural adjustment they would have in Thailand.

H4: Mentor programming is positively impact cross-cultural adjustment of Japanese expatriates in Thailand.

Mentor programming plays a significant role in enhancing the degree of cross-cultural adjustment.

Pre-departure mentor programming can enhance expatriates' international adjustment. This would create accurate expectations before the departure stage so that they will be aware and prepare to adjust themselves to the host-country environment, work role and also the organizational culture. Therefore, this led to hypothesis H4.1 below:

H4.1: Pre-departure mentor programming positively impact to cross-cultural adjustment of Japanese expatriates in Thailand

Not only can pre-departure mentor programming enhance the degree of adjustment, on-site mentor is another important mechanism that is also required for expatriates to overcome difficulties in the host country. On-site mentor is provided in the host country when problems arise. The advice given can be on issues related to living in the host country, work role required in the subsidiary and also adapting to a novel organizational culture. Therefore, this type of support, coaching, protection and sponsorship were expected to stimulate the overall degree of cross-cultural adjustment. This led to the derivation of hypothesis 4.2 in this study:

H4.2: On-site mentor programming positively impact cross-cultural adjustment of Japanese expatriates in Thailand

The last independent variable was related to demographic profiles of Japanese expatriates, which covers four sub-variables of age, prior international experience, current assignment tenure and education. Age of the expatriates was expected to positively relate to cross-culture adjustment. Prior international assignments were also proposed to have a positive impact on the degree of cross-cultural adjustment. Therefore, it is implied that the more international experience the expatriate has, the stronger the degree of cross-cultural adjustment in the Thai culture context. Current assignment tenure, also a sub-variable in the demographic profile, was proposed to positively impact the ability of Japanese expatriates to adjust toward cross-cultural issues. The longer they perform their current international assignment in Thailand, the higher the degree of cross-cultural adjustment. The education level of expatri-

ates was also expected to have a positive consequence on cross-cultural adjustment; the higher the Japanese expatriate's educational level, the better the adjustment to the context.

H5: There is significant difference in cross-cultural adjustment based on the demographic profiles of Japanese expatriates working in Thailand.

Age of expatriate is a factor that can make a difference in the overall degree of cross-cultural adjustment. Young expatriates are more flexible and open-minded, so they might be able to adjust themselves more successfully in the difficult context of the Thai environment and culture. However, younger expatriates have less experience in comparison to seniors. Senior expatriates might possess various work experiences, but they might be inflexible and may resist changing or adjusting themselves to the new environment. Therefore, hypothesis 5.1 posited that age makes a difference in the degree of international adjustment.

H5.1: There is significant difference in cross-cultural adjustment among Japanese expatriates in different age groups.

Educational levels impact abilities, skill, and knowledge of a person. Therefore, possessing a high level of education would make a difference in the degree of cross-cultural adjustment. Educational level also influences a person's decision making and ability to solve problems both at work and in daily life. Therefore, the hypothesis was posited below:

H5.2: There is significant difference in cross-cultural adjustment among Japanese expatriates who have different educational levels.

Number of children that expatriates have creates a huge impact on the degree of cross-cultural adjustment. The higher the number of children that an expatriate has, the more problems he/she has to face (Dowling at al., 2008). These problems pertain to factors, such as education, living conditions, food, language, friends and family issues.

H5.3: The number of children of Japanese expatriates makes a significant difference in the overall degree of their cross-cultural adjustment in Thailand.

The concept of prior international experience and tenure in the current assignment are crucial determinants of the degree of overall adjustment of expatriates. When expatriates have prior international experiences, they become aware of the novel environment and are flexible in adjusting themselves to the new work and living context. In addition, they would not solely stick themselves in their own culture and country of origin. As a consequence, the following hypothesis proposed that prior international experience would yield different degrees of cross-cultural adjustment.

H5.4: There is a significant difference in cross-cultural adjustment based on different levels of prior international experience of the Japanese expatriates in Thailand.

Tenure in the current international assignment would make a significant difference in the degree of cross-cultural adjustment; the longer expatriates work in a particular country (host), the more they are able to absorb the new environment and culture. The study proposed the following hypothesis:

H5.5: There is significant difference in cross-cultural adjustment among different level of tenures of Japanese expatriates.

Spouse adjustment was proposed as the moderator in the research framework. Often, it is the spouse who handles much of the burden for family adjustments and consequently feels more stress over the transition to the host country (Black & Stephen, 1989; Tung, 1982). Spouses typically take care of household responsibilities and child care concerns, every element of which may require operating by new and different rules, environments and life styles. Spouses also have explicit influence over expatriates. Therefore, spouse adjustment would have a significant impact on the degree of cross-cultural adjustment of expatriates as well (Black & Gregersen, 1991; Shaffer et al., 1999; Shimoni et

al., 2005). Spouse's experience in the host country's environment can influence expatriate's experience at work (Andreason, 2008). Furthermore, when spouses are well adjusted to the host country's environment, there will be more emotional and psychological support for expatriates (Andreason, 2008; Shaffer et al., 1999). This hypothesis is also found in the study by Shaffer et al. (1999) who examined and found significant interaction effects of spouse adjustment on the cross-cultural adjustment of expatriates. In this study, it was proposed that the better the spouse adjustment in the Thai context during the stay of expatriates, the stronger the relationships between independent and dependent variable.

H6: Spouses' adjustment (i.e. interaction and general adjustment) positively moderates the positive relationship between the independent variables and the dependent variable of overall cross-cultural adjustment of Japanese expatriates in Thailand.

RESULTS AND FINDINGS

This study was conducted to examine the determinants of cross-cultural adjustment of Japanese expatriates in Thailand. The independent variables included learning characteristics, congruency in organizational cultures, effectiveness of cross-cultural training, mentor programming and demographic profile. A moderator was employed in determining the cross-cultural adjustment of the Japanese expatriates which was spouses' degree of adjustment in Thailand as the host country.

Based on the structural paths in the research framework, the first determinant of the Japanese expatriates' cross-cultural adjustment was their individual learning characteristics. Learning characteristics of the Japanese expatriates statistically appeared to be the most important determinant showing a significant positive relationship ($\beta = 0.505$, C.R. $= 7.069$, $P < 0.001$) with their overall degree of cross-cultural adjustment. These learning characteristics included personal mastery ($\beta = 0.705$, C.R. $= 13.818$, $P < 0.001$), mental models ($\beta = 0.215$, C.R. $= 4.038$, $P < 0.001$), team learning ($\beta = 0.657$, C.R. $= 12.831$, $P < 0.001$), shared-vision ($\beta =$

0.783, C.R. = 11.893, P < 0. 001) and system thinking (β = 0.736, C.R. = 14.426, P < 0. 001). The possession of strong learning characteristics would enable Japanese expatriates to achieve a high degree of cross-cultural adjustment which implied that they could adjust well, interact with people in the host country, live in the novel environment of the host country's culture and work under the new job requirements. As the majority of the respondents surveyed belonged to an upper managerial cadre, this variable was very important in determining success as working with and through local people was the main function of managers. Hypothesis 1 was supported by the results; hence, learning characteristics were positively related to cross-cultural adjustment. The five dimensions treated as latent constructs of learning characteristics were also significant in measuring this independent variable.

The second determinant in the cross-cultural adjustment model was the congruency of organizational cultures between the headquarters and subsidiaries. This variable had been proposed in several prior studies (e.g. Black, 1991; Black et al., 1991), especially in the most cited paper by Black, Mendenhall & Oddou (1991). The discrepancy in organizational cultures was purported to have a negative relationship with the degree of cross-cultural adjustment as it increased uncertainty for expatriates (Andreason, 2008). However, the research findings of this study did not conform to previous findings, in that, the congruency of organizational cultures was not a significant factor in determining and predicting the degree of cross-cultural adjustment (β = 0.082, C.R. = 1.548, P >0.05). Therefore, similarities in the organizational cultures of the headquarters and subsidiaries had no significant impact on the ability of the Japanese expatriates to adjust themselves in Thailand. The second hypothesis was not supported; perceived congruency in organizational cultures did not have a significant relationship with cross-cultural adjustment. Although its latent constructs appear to significantly represent this main variable, they could not predict the cross-cultural adjustment phenomenon.

Cross-cultural training was another factor examined in determining the overall degree of cross-cultural adjustment. This variable had a strong explanatory power in the adjustment literature and it was one of the most frequently discussed and researched factors. In fact, some scholars as well as

MNC managers had conflicting views on cross-cultural training for expatriates (Taveggia & Gibboney, 2001) as they believed that expatriates rarely benefit from such training. However, the findings in this study showed that effectiveness in cross-cultural training had a significant positive relationship with the degree of cross-cultural adjustment (β = 0.210, C.R. = 4.621, P < 0.001). This implies that effective cross-cultural training can improve the acculturation ability of Japanese expatriates in the host country of Thailand. Hypothesis 3 was supported. Mentor programming in this study consisted of pre-departure mentor and on-site mentor. Mentor was the third variable in the research model, the impacts of which had been examined in cross-cultural adjustment. The statistical analysis showed interesting findings on the examination of this variable. Even though, the variant and invariant models of post and pre departure mentors did not appear to have significant differences, the examination of the impacts between the groups that had and did not have pre-departure mentor, as well as on-site mentor (mentor and no mentor) could provide meaningful results. The results showed that pre-departure mentor and on-site mentor created a strong positive influence on cross-cultural adjustment. Interestingly, they created a significant improvement in the explanatory power (R^2 of pre-departure mentor model = 68.3% versus no pre-departure mentor = 49.8% and on-site mentor = 73.7% versus no on-site mentor = 47.2) of the models as well. Therefore, it could be concluded that mentor programming had a positive impact on the degree of cross cultural adjustment of Japanese expatriates in Thailand. The fourth hypothesis was also supported.

Unlike some studies on cross-cultural adjustment, Japanese expatriates were not found to have many differences in their overall degree of cross-cultural adjustment as per their demographic profiles. Statistically, there were no significant differences in the degree of cross-cultural adjustment between the groups that had different educational levels (F = 1.82, p >0.05), numbers of children (F = 0.25, p >0.05), length of current tenure in Thailand (F = 1.63, p >0.05) and prior international assignment (F = 2.41, p >0.05). However, only age appeared to create a significant difference in cross-cultural adjustment (F = 3.15, p < 0.05). According to the test of difference, Japanese expatriates within the age group of 30 to 39 years old had the highest

overall degree of cross-cultural adjustment and the second highest appeared within the group of those aged 39 to 49. Hypothesis 5 was partially supported.

The last variable in the model was spouse adjustment which was proposed as the moderator in the research framework. Spouse adjustment was partially supported as it had a significant positive moderating relationship on the independent variables of learning characteristics ($\beta = 0.59$, C.R. $= 5.18$, P < 0.05) and effectiveness in cross-cultural training ($\beta = 0.21$, C.R. $= 2.27$, P < 0.05) with the dependent variable of cross-cultural adjustment. However, the spouse's adjustment was not significantly related to cross-cultural adjustment ($\beta = 0.04$, C.R. $= 0.53$, P > 0.05). These findings implied that spouse's adjustment was an important factor for Japanese expatriates because it created positive interaction effects with the independent variables of learning characteristics and effectiveness in cross-cultural training in enhancing the degree of expatriate's cross-cultural adjustment. Lastly, hypothesis 6 was also partially supported. The next section presents the discussions of these findings and results based on the research questions and hypotheses posed earlier in the study.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, it was possible to propose effective practical mechanisms for Japanese multinational corporations in Thailand to facilitate their expatriates' overall degree of cross-cultural adjustment. The following key points are derived from the integration of findings to answer the question posed in the statement of the problem. The overriding question of this study was posed as follows:

> "How can Japanese Multinational Corporation enhance the overall degree of cross-cultural adjustment of their expatriates in Thailand?"

The first recommendation derived from the findings was that learning characteristics of expatriates were keys factors to determine and enhance the degree of cross-cultural adjustment. Secondly, ex-

patriate assignment's support strategies which include preparations of the expatriates before departure and on-site stages (cross-cultural training and mentor programming) could enhance the overall degree of cross-cultural adjustment. Japanese multinational corporations could also enhance the degree of cross-cultural adjustment by having proper preparation, selection, and support for expatriate spouses as spouse's adjustment appeared to create a significant impact on the process of expatriates' acculturation. Lastly, expatriate cross-cultural adjustment could not be achieved without appropriate human resource management practices among the Japanese multinational corporations. The concepts from the integration of findings are presented in the following section.

Cross-Cultural Adjustment as Systematic Learning Process

Selection of Japanese expatriates should be based on individual learning characteristics. As an effective selection criterion, Japanese multinational corporations in Thailand should pay attention to the cultural fit between expatriates and the environment of the host country for effective cross-cultural adjustment. As supported by prior research, adjustability into the novel environment of the host country depend on expatriate selection procedure and criteria which should be appropriate to the contextual circumstances. Therefore, it is recommended that Japanese multinational corporations tailor their expatriate selection process to identify the expatriates' individual characteristics (i.e. learning characteristics and age. From the findings of this study, having high learning orientation characteristics assisted expatriates adjustment, so they could function more easily and more effectively, thereby increasing the likelihood of completing the assignment, achieving goals of international expansion.

Expatriate Assignment Support Strategies

As the prior research on expatriate management showed that organizational support predicted and assisted expatriate assignment adjustment (Caligiuri et al., 1999; Shaffer et al., 1999), Japanese multinational corporations should have effective strategies to facilitate their expatriates on their postings in Thailand. The expatriate assignment's support in-

volves the assistance on expatriates' adjustment to the new working environment of the host country (McCaughey & Bruning, 2004), i.e. Thailand. With the expatriate assignment's support strategies, Japanese multinational enterprises could enhance the degree of cross-cultural adjustment (Caligiuri et al., 1999; McCaughey & Bruning, 2004; Shaffer et al., 1999) this could also enhance job satisfaction (McCaughey & Bruning, 2004; Naumann, 1992) of the Japanese expatriates in Thailand which would ultimately increase the probability of having successful international assignments. The following section elaborates these strategies.

## Preparations Create Accurate Expectation in the Host Country

Japanese multinational corporations should provide effective preparations for their expatriates via cross-cultural training and mentor programming to assist in the degree of cross-cultural adjustment. Preparations for international assignment could reduce uncertainty through providing information so the expatriates would have an accurate expectation about the host country. Accuracy in expectation could lead to effectiveness in cross-cultural adjustment and increase job satisfaction in their international assignment (Taveggia & Gibboney, 2001). Cultural shock and its negative impacts would be minimal.

Accurate expectation was proposed by many scholars to be an intangible factor underlying expatriates' effective acculturation (Black, 1988; Black et al., 1991; Black & Mendenhall, 1990; Black & Gregersen, 1991). Preparations should be appropriately provided to help expatriates to reduce uncertainty in a new cultural environment so they could create a sense of well being and comfort in that novel environment.

Effectiveness in cross-cultural training and mentor programming were significant predictors for the cross-cultural adjustment of Japanese expatriates in Thailand. Types of cross-cultural training were important in the preparation stage of the expatriates. However, the factor that was more important than types of training was training effectiveness. Therefore, multinational corporations should be more concerned and consistently measure the effectiveness of their cross-cultural trainings provided for their expatriates. The measurement of effectiveness should be structured to capture various aspects in the process of expatriation, such as adaptation skills, job involvement and commitment, interpersonal skills, communication skills and job satisfaction on the international assignment.

In addition to the cross-cultural training, mentor programming should also be provided by the Japanese headquarters to create accurate expectations that lead to a better degree of overall cross-cultural adjustment. Mentor programming in this study con-

Figure 3: Preparations Create Accurate Expectation

Preparation for International Assignment

↓

Uncertainty Reduction

↓

Cross-Cultural Adjustment

↓

Accurate Expectation
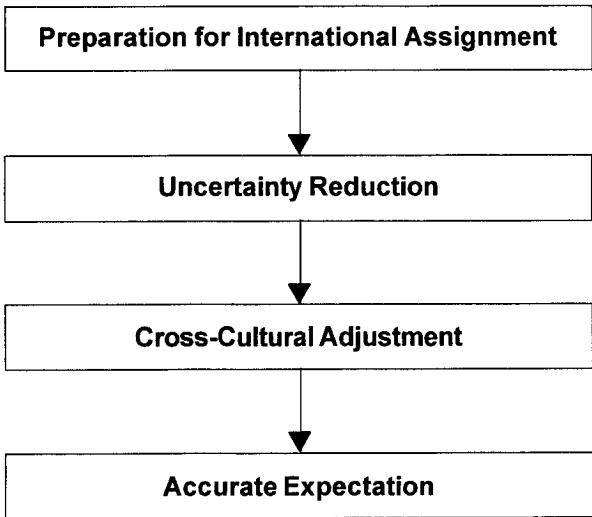
sisted of pre-departure mentor programming and on-site mentor programming. Pre-departure mentor programming had the ultimate role of giving advice on accepting a certain international assignment. This mentoring is provided before the departure stage so that executives will be aware and prepare to adjust themselves to the host-country environment, work role of the assignment and also the novel organizational culture.

On-site mentoring is provided at the location of the host country where problems arise, this mentoring includes issues related to living in host country, working role of the accepted assignment in the subsidiary and also adapting to a novel organizational culture. Therefore, the assistance of these two types of mentor programs can reduce uncertainty and create accurate expectation for expatriates, so these preparation processes have a positive impact on cross-cultural adjustment (McCaughey & Bruning, 2004; Mezias & Scandura, 2005).

Treat Spouse Adjustment as the Key for Expatriation

Japanese firms should provide strategic supports to enhance spouse adjustment in Thailand. Tung (1987) found that the spouse's inability to adjust was the number one reason for expatriate failure. Even though Japanese scored very high in the masculinity index in which spouses might had minimal involvement on the decision making of the expatriates, the findings confirmed that spouse adjustment could moderate the overall degree of expatriates' cross-cultural adjustment. Therefore, spouse adjustment should remain at the heart of expatriation.

Spouse adjustment is directly related to two factors: interaction adjustment and the adjustment toward the general environment of the host country. The difficulties of spouse adjustment can be related to many factors as it is likely that the accompanying spouses suffer more during the adaptation process than the expatriates themselves. Normally, spouses have to live the host country during the international assignment of the expatriates without the direct support and network of their families and friends. In addition, the majority of spouses depart for the host country without sufficiency of language skills, cross-cultural cultural training and also lack of adequate social support programs to assist them in developing appropriate lifestyles overseas (Andreason,

2003). Therefore, multinational corporations should aim to minimize possible problems associated with culture shock by providing supports to enhance spouses' ability in both interaction skills with people in the host country and their adjustment toward the novel environment.

Overcoming Spouses' Maladjustment

There are some strategies suggested for the Japanese multinational corporations to overcome or minimize the negative impacts from spousal maladjustment in the host country. These strategies are in the form of proper HR practices and support provided from the headquarters. The support from the multinational corporations for expatriates together with their spouses could be in terms of preparation, cross-cultural training, mentor programming or even begin from the selection procedures to find appropriate candidates for a particular location of the international assignment. It is recommended that training and development programs of expatriates should include their spouses as well. Spouses should be well informed about the culture and environment of the host country. Takeda (1998) suggested that Japanese firms should provide this kind of assistance before and after transition for spouses' achievement of better cross-cultural adjustment in this host country (Takeda, 1998).

Appropriate International Human Resource Management Practices

The final recommendation of the study suggests the need for appropriate international human resource management practices. The Japanese expatriates in this study were classified as parent country nationals (PCNs). Parent country nationals are defined as employees of the multinational corporations "who are citizens of the country where the multinationals' corporation headquarter are located" (Tarique, Schuler & Gong, 2006, p.209). Therefore, headquarters need to take care and plan for the appropriate selection, placement, development and support of their expatriates (Porter & Tansky, 1999).

Through having appropriate international human resource management practices, Japanese multinational corporations can enhance the cross-cultural adjustment of their expatriates (Porter & Tansky, 1999). The headquarters should select the right expatriate for the assignment in Thailand through the identification of employees who can adapt and work

effectively in the host country. Effective placement can help to increase cross-cultural adjustment, so headquarters should identify employees who can better handle the discrepancy in national culture as well as to develop the expatriates' ability to adapt and learn in new situations.

Overall, this study had fulfilled the research objectives as the findings suggested some important determinants of cross-cultural adjustment as well as mechanisms for the Japanese multinational corporations to minimize the impact of discrepancy in Japanese and Thai cultures.

Limitations of the Study

There are some limitations embedded in this study of cross-cultural adjustment of Japanese expatriates. Firstly, this study is conducted in the specific time period, so research findings of each relationship may vary from previous and future time periods.

Secondly, this study does not incorporate the construct of "job factor" into the research model. It is a limitation because prior research argues that there is significant relationship between job factor and cross-cultural adjustment (Black et al., 1991; Shaffer et al., 1999). However, this study has its main focus on acculturation of expatriates rather than role competencies.

Finally, this study did not incorporate gender as one of the demographic variables as the majority of the Japanese expatriates in Thailand are male.

Suggestions for Future Research

Based on this study, there are some suggestions for conducting further research on cross-cultural adjustment. Firstly, it is suggested that comparative studies should be done to compare between males and female expatriates on the three dimensions of cross-cultural adjustment in Thailand. Gender should be considered in determining the degree of cross-cultural adjustment, because gender, as has been argued by other studies in the field, has a significant impact on acculturation.

Secondly, studies on expatriates' spouses should be encouraged. It has been show in the findings of this study and others that spouse is a key driver for expatriates to be either successful or fail in their international assignment. Therefore, it is worth examining factors that can predict spouse's cross-cultural adjustment as well.

Lastly, positional effect should also be incorporated as one of the determinants of cross-cultural adjustment, because different positions of expatriates in an organization's hierarchy may lead to different degrees of cross-cultural adjustment. In fact, it can also be incorporated as a moderator in the model.

REFERENCES

Andreason, A. W. (2003). Direct and indirect forms of in-country support for expatriates and their families as a means of reducing premature returns and improving job performance. *International Journal of Management*, 20(4), 548-555.

Andreason, A. W. (2008). Expatriate adjustment of spouses and expatriate managers: An integrative research review. *International Journal of Management*, 25(2), 382-393.

Black, J. S. (1990). The relationship of personal characteristics with the adjustment of Japanese expatriate managers. *Management International Review*, 30(2), 119-134.

Black, J. S., & Gregersen, H. B. (1991). The other half of the picture: Antecedents of spouse cross-cultural adjustment. *Journal of International Business Studies*, 22(3), 461-477.

Black, J. S., & Mendenhall, M. (1989). A practical but theory-based framework for selecting cross-cultural training methods. *Human Resource Management*, 28(4), 511-539.

Black, J. S., & Mendenhall, M. (1990). Cross-cultural training effectiveness: A review and a theoretical framework for future research. *The Academy of Management Review*, 15(1), 113-136.

Black, J. S., & Mendenhall, M. (1991). The u-curve adjustment hypothesis revisited: A review and theoretical framework. *Journal of International Business Studies*, 22(2), 225-247.

Black, J. S., Mendenhall, M., & Oddou, G. (1991). Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. *The Academy of Management Review*, 16(2), 291-317.

Black, J. S., & Stephens, G. K. (1989). The influence of the spouse on American expatriate ad-

justment and intent to stay in Pacific Rim overseas assignments. *Journal of Management,* 15(4). 541.

Bolino, M. C. (2007). Expatriate assignments and intra-organizational career success: Implications for individuals and organizations. *Journal of International Business Studies,* 38(5), 819-835.

Bonache, J., Brewster, C., & Suutari, V. (2001). Expatriation: A developing research agenda. *Thunderbird International Business Review,* 43(1), 3-20.

Caligiuri, P., Phillips, J., Lazarova, M., Tarique, I., & Burgi, P. (2001). The theory of met expectations applied to expatriate adjustment: The role of cross-cultural training. *International Journal of Human Resource Management,* 12(3), 357-372.

Clegg, B., & Gray, S. J. (2002). Australian expatriates in Thailand: Some insights for expatriate management policies. *International Journal of Human Resource Management,*13(4), 598-623.

Colakoglu, S., & Caligiuri, P. (2008). Cultural distance, expatriate staffing and subsidiary performance: The case of US subsidiaries of multinational corporations. *The International Journal of Human Resource Management,* 19(2), 223-239.

Dowling, P. J., Festing, M., & Engle, A. D. (2008). *International human resource Management* (5th ed.). UK: Cengage Learning.

Flood, R. L. (1998). Fifth discipline: Review and discussion. *Systemic Practice and Action Research,* 11(3), 259-273.

Haile, S., Jones, M. D., & Emmanuel, T. (2007). Challenges facing expatriate performance abroad. *International Journal of Business Research,* 7(5), 100-105.

Jun, S., Gentry, J. W., & Hyun, Y. J. (2001). Cultural adaptation of business expatriates in the host marketplace. *Journal of International Business Studies,* 32(2), 369-377.

King, S. W. (2002). *Effective leadership for quality achievement and organizational learning.* Unpublished doctoral dissertation, Portland State University. (ProQuest information and learning company No. UMI3058143) Retrieved March 7, 2002, from ProQuest database.

Littrell, L. N., Salas, E., Hess, K. P., Paley, M., & Riedel, S. (2006). Expatriate preparation: A critical analysis of 25 years of cross-cultural training research. *Human Resource Development Review,* 5(3), 355-388.

McCaughey, D., & Bruning, N. S. (2004). Enhancing opportunities for expatriate job satisfaction: HR strategies for foreign assignment success. *Human Resource Planning,* 28(4), 21-29.

McNulty, Y. M., Tharenou, P. (2004). Expatriate return on investment. *Academy of Management Best Conference Paper,* 1-6.

Mendenhall, M., & Oddou, G. (1985). The dimensions of expatriate acculturation: A review. *The Academy of Management Review,* 10(1), 39-47.

Mezias, J. M., & Scandura, T. A. (2005). A needs-driven approach to expatriate adjustment and career development: A multiple mentoring perspective. *Journal of International Business Studies,* 36(5), 519-538.

Minter, R. L. (2008). Preparation of expatriates for global assignments: Revisited. *Journal of Diversity Management,* 3(2), 37-42.

Moran, F., Palmer, D. W., & Borstorff, P. C. (2007). An exploratory analysis of the relationship between organizational culture, regional culture, causal ambiguity and competitive advantage in an international setting. *Journal of International Business Research,* 6(1), 61-75.

Naumann, E. (1992). A conceptual model of expatriate turnover. *Journal of International Business Studies,* 23(3), 499-531.

Porter, G., & Tansky, J. W. (1999). Expatriate success may depend on a Learning orientation: Considerations for selection and training. *Human Resource Management,* 38(1), 47-60.

Senge, M. P. (1990). *The fifth discipline: The art and practice of the learning organization.* London, UK: Century Business.

Shaffer, M. A., Harrison, D. A., & Gilley, K. M. (1999). Dimensions, determinants, and differences in the expatriate adjustment process. *Journal of International Business Studies,* 30(3), 557-581.

Shimoni, T., Ronen, S., & Roziner, I. (2005). Predicting expatriate adjustment. *International Journal of Cross Cultural Management,* 5(3), 293-312.

Sirmon, D. G., & Lane, P. J. (2004). A model of cultural differences and international alliance performance. *Journal of international Busi-*

ness Studies, 35(4), 306 - 319.

Swierczek, F. W., & Onishi, J. (2003). Culture and conflict: Japanese managers and Thai subordinates. *Personnel Review*, 32(2), 187-210.

Takeda, K. (1998). *Relationship between stressors and psychosomatic conditions in Japanese wives residing in Bangkok*. Unpublished doctoral's dissertation, Assumption University, Bangkok, Thailand.

Tarique, I., Schuler, R. & Gong, Y. (2006). A model of multinational enterprise subsidiary staffing composition. *International of Human Resource Management*, 17(2), 207-224.

Taveggia, T. C., & Gibboney, S. N. (2001). Cross cultural adjustment: A test of the uncertainty reduction principle. *International Journal of Cross Cultural Management*, 1(2), 153-171.

The Board of Investment in Thailand. (2010). *Japanese Investment Projects Submitted to BOI*. Information Internet Available: (Accessed 27/6/2011), http://www.boi.go.th.

Tung, R. L. (1981). Selecting and training of personnel for overseas assignments. *Columbia Journal of World Business*, 16(1), 68-78.

Tung, R. (1982). Selection and training procedures of US, European, and Japanese multinationals. *California Management Review*, 25(1), 57-71.

Tung, R. L. (1987). Expatriate assignments: Enhancing success and minimizing failure. The Academy of Management Executive, 1(2), 117-125.

Yamazaki, Y., & Kayes, D. C. (2007). Expatriate learning: Exploring how Japanese managers adapt in the United States. *International Journal of Human Resource Management*, 18(8), 1373-1395.

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STOCK SPLIT AND ITS IMPACT UNDER BEARISH CONDITION: AN EMPIRICAL STUDY ON THE INDONESIAN STOCK MARKET

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บทคัดย่อ

งานวิจัยนี้ ศึกษาผลกระทบจากการแตกหุ้น (Stock split) ในสภาวะที่ตลาดหุ้นซบเซาหรือระหว่างวิกฤตทาง เศรษฐกิจ การแตกหุ้น มักทำให้เกิดปัญหาสภาพคล่องและผลประกอบการ งานวิจัยนี้พิสูจน์ให้เห็นว่าการแตกหุ้นก่อให้ เกิดผลดีต่อกิจการ ทฤษฎีหลักที่ใช้ในงานวิจัยนี้คือ ทฤษฎีการส่งสัญญาณตลาด และ ช่วงราคาซื้อขายหลักทรัพย์ ข้อมูลที่ใช้ศึกษาได้มาจาก ตลาดหุ้นอินโดนีเซียระหว่างปี 1997 - 1999

Abstract

This paper presents the impact of stock split in bearish condition or when the economy was hit by the crisis. When stock split is taken, the liquidity and abnormal return are the vital subjects to be explored further since the conclusion of those matters are still under discussion. This study proves that stock split can be valuable. The signaling theory and trading range theory are the principal theories to be addressed. This study was taken from Indonesian Stock Exchange in mid-1997 up to 1999.

INTRODUCTION

Generally stock split is issued in order to improve the level of liquidity because companies have seen their stock prices to the levels that are too high or out of the price level of similar companies in their sector (Fama, Fisher, Jensen & Roll, 1969; Lamoureux & Poon, 1987; Conroy, Harris, & Benet, 1990.) Illiquidity is the problem when the stock price starts to move up and becomes "expensive" for the investors. Most researchers state that the stock split is one indicator of bullish situation (Ader & Diamant, 2006; Nugraha, 2004); however, it does not mean that the stock split cannot be done in bearish markets. The only difference is on the likelihood of successful increased liquidity. This means the possibility of increased liquidity in the bull market is better than in the bear market (Nugraha, 2004).

Liquidity was a significant factor during the financial crisis in Indonesia in 1997. It all started when it was found that many Indonesian investors owed a large amount of dollars. Indonesia did not have a sound banking system which worsened the previous condition and to top it off, citizens lacked confidence in their government system. Such predicaments caused the country to experience the rampant contagious effects of the financial crisis. The Rupiah was down more than 200% because of a great demand for the U.S dollar. Liquidity became the big problem faced by many institutions and investors at that time.

Figure 1 shows that during mid-1997 to 1999, the stock split events in Indonesian stock exchange was peculiar as compared to neighboring countries (Philippines, Malaysia, Thailand and Singapore). The tendency to decline was obvious and sharp. This condition most likely happened because of the previous extreme increase that occurred before 1997. The economic growth in 1995 until mid-1997 created very sharp increases and when Indonesia was hit by the crisis, a super decline could not be avoided.

The study done by Grinblatt, Masulis & Titman (1984) has shown that the stock split is an important economic event and has generated anomalous return that does not happen only on the date of the announcement, but also on the ex-date. They found

Figure 1: Stock Split Events in Five (5) countries in ASIA
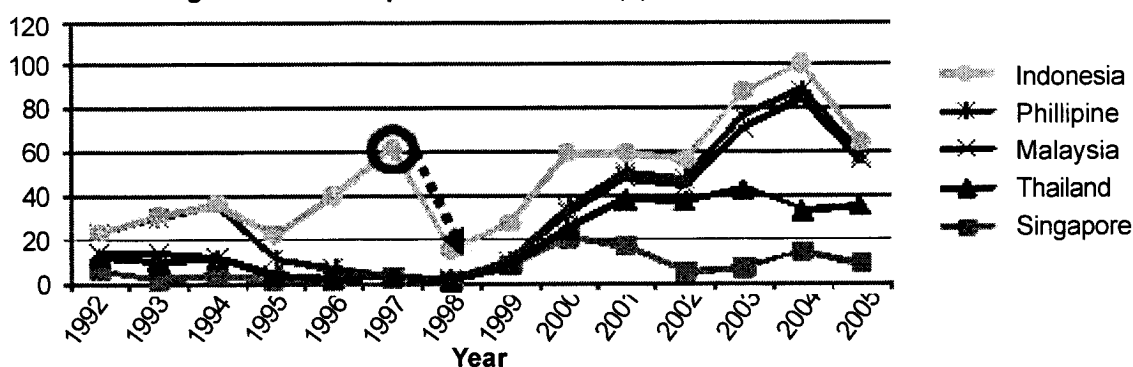
Source: Developed from Bloomberg database

abnormal returns 3 days after the stock split announcement. Based on a long period of observation, Fama et al. (1969) found the stock has given 30% abnormal return two years after the stock split. Sears & Trennepohl (1993) concluded the existence of market anomalies, because of the split, in that the company earnings will be greater. Dennis & Strickland (2003) stated that the positive abnormal return of stock split can be interpreted as a signal that corporate managers are optimistic about future prospects.

This paper aims to explore the impact of stock split during the bearish period and whether the liquidity can be improved (Muscarella & Vetsuypens, 1996; Baker & Gallagher, 1980) or should not occur (Lamoureux & Poon,1987; Conroy, Harris & Benet,1990 and Gray, Smith, & Whaley, 2003).

The evaluation of liquidity changes in this paper will be done between the pre-announcement period and various event windows surrounding the split announcement and the effective dates, which are the announcement, the post-announcement to pre-ex, the ex-date, and the post-ex periods. Using the liquidity proxies such as, Relative Spread, Zero, Volume, and Amihud, this paper is intended to explore whether:

1. there is any impact of stock split on liquidity during bearish period from mid-1997 to 1999
2. the cumulative abnormal return can be explained by the change of liquidity.

Stock Split

Brigham & Ehrhardt (2005) explained that with the stock split, the shareholders are given a number

(or fraction) of additional shares in accordance with a specified split factor. For example, in the three-for-one split (3:1), each shareholder will receive three new shares for each old share, so the amount of their ownership is augmented to three times the number of shares they held previously. Shortly, stock split action replaces the old number of shares with the bigger number of shares. As Libby, Libby & Short (2001: 609) stated

> *"In a stock split, the total number of authorized shares is increased by a specified amount, such as 2 for 1 split. In this instance, each held is called in, and two new shares are issued in its place."*

Stock split indicates the change in the number of shares outstanding along with the price level. Horngren, Harrison & Smith (2002:545) explained the impact of stock split as follows:

> *"Effect of stock split is a change in the par value of the stock. It also increases the number of shares of stock authorized, the issued and outstanding ones."*

Dolley (1993) studied the main reason of the stock split of the 88 sample companies that issued stock splits during the period of 1922 to 1930. After a survey was conducted on managerial action, it was found that liquidity was the main purpose with the expectation of a wider distribution of ownership shares. Baker & Gallagher (1980) interviewed 100 chief financial officers (CFO) of the NYSE listed companies in 1978. The study reported that most

companies do stock split in order to get a better trading range, and this condition can attract investors and increase liquidity in the stock trading. Both surveys provide similar results from different periods. Muscarella & Vetsuypens (1996) reported that stock splits can augment liquidity by increasing the number of ownership and thereby reducing the cost of stock trading. Maloney & Mulherin (1992) stated that trading volume increased due to stock split. Kadapakkam, Krishnamurthy & Tse (2005) found that the increase in the 'relative spreads' provided incentives for the brokers to promote the stock split to investors who have small budgets. Conroy et al. (1990); Gray et al. (2003) show the stock split triggers the spread to increase after the effective date. Though previous studies have supported the liquidity reason for the stock split, many researchers found conflicting results. Baker & Powell (1993) found that stock split had no impact on cash flow and stock ownership. Copeland (1979); Murray (1985); and Lamoureux & Poon (1987) reported that liquidity levels declined even after the stock split. Gray et al. (2003) argued that stock split increases trading costs because of the increasing number of market participants who want to make a profit. Lakonishok & Lev (1987), and Goyenko, Holden & Ukhov (2008) found that liquidity is a temporary condition and the increase in liquidity potentially occurs after 2 years.

There are many purposes of stock split but one of the main reasons is to facilitate solutions to making the trading transaction easier. For a growing company, publishing stock split will help them sustain progress. In addition, the reason of the issuance of stock split can be explained by psychology. This fact supported the idea of Fama et al. (1969) who indicated the unusual behavior of investors around the time of publication of stock split with the stock split allegedly given an unusual return too.

Stock split is based on two basic theories namely; Signaling Theory and the Trading Range Theory. Signaling theory was established by Brennan & Copeland (1989). Signaling theory states that managers have private information about the good prospects for the future of their companies. Signaling Theory, if applicable, conveys positive information about the company's future prospects after the issuance of stock split and its content, as a result that the predicted stock split announcement will in-dicate a positive market reaction and increased liquidity. Trading Range Theory suggests that the management decided to split because the behavior of stock markets where they believe will lower the prices which make trading more affordable. However, if the Trading Range Theory applies, the positive market reaction and increased liquidity will not be achieved until the date of execution of new shares to replace the old stock (Huang, Kartono & Ming-Shiun, 2007). Therefore, different time periods showed different implications under these two hypotheses.

The controversies including whether stock split affects the level of shareholders' wealth, changes the stock risk, increases liquidity, and provides signals to the market are still continuing. The differences may be due to diversities in samples, duration of observation, the state, or the investors.

Abnormal Return and Stock Split

Abnormal return is the difference between the expected return and actual return. Typically, the value of expected return obtained from the average index on capital markets. Abnormal return is sometimes triggered by "events". For example, mergers, dividend announcements, company earnings announcements, interest rate increases, lawsuits, stock split and so forth.

Abnormal return can be either good or bad, because it is only a summary of how the value of the difference between actual return and expected return. For example, 30% of income in mutual funds that are expected to average 10% per year will create a positive abnormal return of 20%. If, on the other hand, the actual return is 6%, this will result in negative abnormal returns of 4%.

Having seen the previous explanation, the abnormal return typically occurs when an interesting moment occurred in the market, such as stock split. Fama et al. (1969), Grinblatt et al. (1984), Lakonishok & Lev (1987), Asquith, Healey & Palepu (1989), Mc Nichols & Dravid (1990), and Desai & Jain (1997) reported the findings that appear abnormal for positive returns around stock split announcement date. Increased liquidity and risk causes an increase of abnormal returns and ultimate profitability.

The Exploration Methods

To prove whether the liquidity can be improved because of stock split in poor condition, and whether the liquidity proxies can explain the abnormal return, this research paper divides the timeline of investigation into some windows namely:- Pre-Announcement (A-252 to A-3), Announcement date (A-2 to A+2), Announcement to Ex-date (A+3 to E-1), Ex-date (E = 0 to E+4), Short-term Post Ex-date (E+5 up to E+10) and Post-Ex date period (E+11 to E+260). The length of 'pre-event' describes the condition before the stock split. There are two important events marked on the time frame, the Announcement period and Ex-date (exercise date). Announcement and Ex-date is marked 0, which marks the peak of research in this study, or events where a significant market event occurs. Pre-event started a few days before the actual event day. This procedure allows investigation into the leak of pre-event information. Post-event window is usually used to check the performance of the company after the incident in a long period of time. Thus, the classification of the data will be conducted in accordance with the time line that has been set.

1. *Comparing Method.*
   The first method is to analyze the liquidity proxies in the companies that made stock split. This is done by comparing the value of the liquidity proxies between windows.
2. *Regression Method*
   In accordance with the previous explanation, this method is used to examine the effects of liquidity variables on abnormal return. Implementation of this method is only dedicated to the Announcement and Ex-date.

The data in this paper mainly are from the Bloomberg database, the rest is taken from the website of Bank Indonesia and Bapepam (Capital Market Supervisory Agency). However, there are some conditions that have been set for the sample in this study. The requirements are:

The sampling procedures for Companies that issued stock split:

1. Companies that have been listed on the Jakarta Stock Exchange.
2. Companies that announce its stock split has been registered in JCI more than 1 year.
3. Sample was detected to stock split issue in mid-year period 1997 to 1999.
4. Stock price data, trading volume, bid and ask price must be available in the database at least a year before and after doing stock split and issuance.
5. In the entire period of the estimated 252 days before the 'announcement-date' and 260 after the 'ex-date' is expected that no data is lost. Tolerance for missing data is approximately 20%.

In order to verify the impact of stock split on liquidity, this research paper uses some proxies of liquidity that will be explored using Paired test. Firstly, Transaction Cost detection such as Relative Spread (RS) and [2]Zeros. [1]Relative Spread helps measure the proportional level of liquidity. The zeros is the formula developed by Lesmond, Ogden & Trzeinka (1999) that attempted to examine the transaction costs through the incidence of zero returns. Secondly, the ability to absorb higher transaction value is directly related to the proportion of the volume of transactions. The significant increasing volume is one of the major signals that the liquidity improvement has occurred (Wang & Rhee, 2009); (Muscarella & Vetsuypens, 1996); (Schultz, 2000). The last is Price Impact that could be traced by using [3]Amihud (Goyenko et.al, 2008). Amihud illiquidity ratio indicates how stock prices react due to daily trading volume in the rupiah. The increased volume in trading should bring in the result in a form of little change in prices. Thus, a more liquid market will show the value of smaller Illiquidity.

The second step of this study is to find the influence of liquidity variables on cumulative abnormal return in Announcement and Ex-date period by using Regression. The independent variables are changes in liquidity (ΔILLIQ), stock price (PRICE) and return variance (VAR) and the dependent variable is Cumulative Abnormal Return (CAR). ΔILLIQ is a change in the ratio between the Amihud Illiquidity and one of the main periods of two post announcement periods (i.e., the announcement and

Table 1: Split Factors Based on Year

Year	Total	2:1	4:1	5:1	10:1
		Low Split		Medium Split	High Split
July-Dec 1997	14	14			
1998	4	4			
1999	5	3		2	

Source: Developed from Bloomberg Database

ex-date periods), where a negative change indicates a change in liquidity. Improvement in liquidity after the announcement date should give a better outlook on operational performance. In this case, estimates of liquidity changes should give a negative coefficient on $\Delta ILLIQ$. Share price (PRICE) is within five trading days around Announcement and Ex-date. If the primary motive of stock split action is to reduce the share price to the lower range, then we should expect that PRICE has negative coefficient. The market should react more positively to lower prices after the split than before the split. ΔVAR is a change in return variance between pre-split period and post-split period. If we predict that there is an improvement in liquidity, consequently, it will bring an impact of an increase in risk then this variable should have a positive sign of coefficient, it means high return results in high risk also. The formula for the regression is:

$$CAR_i: \beta_0 + \beta_1 \Delta ILLIQ_i + \beta_2 PRICE_i + \beta_3 \Delta VAR_i + \varepsilon_i$$

Description of the Samples

This study period focuses on bearish period (mid-1997 up to 1999), in which Indonesia had experienced difficulties with liquidity, and most of the institutions and investors had lack of funds. The following table shows the split factors based on year.

Table 1 reports the split factors based on different years. Split factors are divided into three parts:- low split, medium split and high split. Almost all the samples in this study did split 2:1.

The Results

Paired Test result using Wilcoxon Signed-Rank Test

1. Transaction Cost Detection

a. *Relative Spread*

Table 2: The Result of Relative Spread During 1997-1999

1997-1999	Relative Spread	Change
Pre-Announcement Period	0.038948104	
Announcement Period	0.032025762	-0.006922324
Announcement-to-Ex Period	0.066437872	0.03441211
Ex-Date Period	0.092738621	0.026300749*
Short Term Post-Ex Period	0.086074873	0.006663748
Post-Ex period	0.043328489	-0.042746385

(**Note:** ***, **, * denote significance at the 1%, 5% and 10% levels)

b. *Zeros*

Table 3: The Result of Zeros During 1997-1999

1997-1999	Relative Spread	Change
Pre-Announcement Period	0.394166667	
Announcement Period	0.033333333	-0.060833333
Announcement-to-Ex Period	0.639975	0.0306641667***
Ex-Date Period	0.3	-0.339975***
Short Term Post-Ex Period	0.458329167	0.158329167**
Post-Ex period	0.492666667	0.0343375

(**Note:** ***, **, * denote significance at the 1%, 5% and 10% levels)

Basically, Relative Spread and Zeros are used to detect an increase or a decrease in transaction costs. Relative spread is measured by using the bid-ask spread. Table 2 shows that the change in the liquidity begins to occur around Ex-date period. Relative spreads are significantly increased in Ex-date period by 0.026300745, and then Relative spreads over the long term decline but are not sta-

tistically significant.

The results of the variable zeros in Table 3 indicate that after Announcement Period, there is a significant increase in zeros; however in Ex-date period, a contrary condition occurs. A significant decrease in zeros implies an increase in liquidity. However, after the Ex-date period, the amount of transaction costs is rising significantly. The amount of this increase tends to survive in the long run, although are not statistically significant.

2. Ability to Absorb Higher Transaction Value

Table 4: The Result of Volume During 1997-1999

1997-1999	Relative Spread	Change
Pre-Announcement Period	4036389	
Announcement Period	12883964	8847574.378
Announcement-to-Ex Period	7805491	-50787472.628
Ex-Date Period	2333177	-5472314.013
Short Term Post-Ex Period	1184436	-1148741.01
Post-Ex period	4315529	3131093.122

(Noted: ***, **, * denote significance at the 1%, 5% and 10% levels)

Table 4 shows that there is no significant increase in trading volume around the Announcement date and Ex-date, and the number of transactions tends to decrease after the ex-date to 1,184,436. The increasing trend in the volume or improvement in liquidity can be detected during the Post-Ex Period and this significant increase tends to survive in the long run.

3. Price Impact

Table 5: The Result of Amihud During 1997-1999

1997-1999	Relative Spread	Change
Pre-Announcement Period	5.50167E-05	
Announcement Period	0.013929134	0.013874118
Announcement-to-Ex Period	0.011935336	0.001993799
Ex-Date Period	0.058755375	0046820039
Short Term Post-Ex Period	0.036289351	-0.22466024
Post-Ex period	0.000433289	-0.035856061

(Note: ***, **, * denote significance at the 1%, 5% and 10% levels)

An increase in liquidity will occur if a larger trading volume would lead to a small price change. Table 5 reports that the large price changes happen during Announcement and Ex-date period which implies that there is no improvement in liquidity. However, significant increase in liquidity occurred during the Post-Ex date period based on the decreasing Amihud to 0.000433289.

4. Regression Results (Announcement and Ex-date Period)

From Table 6, the equation can be shown as:-

CAR = -0.030782 + 3.931968ΔILLIQ + 3.489162ΔVAR - 0.0000595PRICE

Based on the regression results in Table 6, it shows that, for 18.7% (R^2) variable CAR (cumulative abnormal return) can be explained by the vari-

Table 6: Regression Result for 1997-1999 Announcement Period

Dependent Variable: CAR				
Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-0.030782	0.082756	-0.371963	0.7138
ΔILLIQ	3.931968	1.904089	20.65013	0.0521
ΔVAR	3.489162	6.862644	0.508428	0.6167
PRICE	5.95E-05	8.51E-05	0.699323	0.4924
R-squared	0.187383	Mean dependent var		0.059977
Adjusted R-squared	0.06549	S.D. dependent var		0.25472
S.E. of regression	0.246238	Akaike info criterion		0.185973
Sum squared resid	1.21266	Schwarz criterion		0.382315
Log like lihood	1.768329	F-statistic		1.537277
Durbin-Watson stat	1.976364	Prob (F-statistic)		0.235728

Table 7: Regression Result for 1997-1999 Ex-date Period

Dependent Variable: CAR				
Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.086867	0.071167	1.220599	0.2364
ΔILLIQ	-0006597	0.334162	-0.019741	0.9844
ΔVAR	2.978566	0.797407	3.735313	0.0013
PRICE	5.37E-05	6.46E-05	0.830718	0.4159
R-squared	0.413858	Mean dependent var		0.19311
Adjusted R-squared	0.325937	S.D. dependent var		0.235833
S.E. of regression	0.193622	Akaike info criterion		-0.294805
Sum squared resid	1.749791	Schwarz criterion		-0.098462
Log like lihood	7.537657	F-statistic		4.707142
Durbin-Watson stat	2.602968	Prob (F-statistic)		0.01209

able ΔILLIQ, ΔVAR, and PRICE, while the remaining of 81.3% is explained by other variables. The F-test results reports that the value of the F-statistic is not significant at any level of α. This indicates that, overall, all independent variables cannot explain the dependent variable, namely CAR. The partial test results also find no significant independent variables affecting the CAR variable except ΔILLIQ.

From table 7, the model can be shown as:-

CAR = 0.086867 - 0.006597ΔILLIQ + 2.978566ΔVAR + 0.0000537PRICE

The regression results indicate that the variable ΔILLIQ, ΔVAR and PRICE can explain the dependent variable (CAR) by 41.39% (R^2), the remaining of 58.61% is explained by other factors. F-statistic is significant at α = 1%, this indicates that overall, all the independent variables can explain the dependent variable or CAR. In a partial test, only the return variance (ΔVAR) significantly affects the CAR, while changes in illiquidity (ΔILLIQ) and the PRICE does not significantly affect the increase in CAR.

Coefficient value for ΔVAR of 2.978566 means that if the variable VAR rises by 1 unit, it will cause an increase in CAR of 2.978566 units, ceteris paribus. This indicates that the CAR and the return variance have a significant positive relationship. However, by considering the regression coefficient of return variance, it can be said that return variance is

the independent variable that has a dominant influence on changes in CAR (cumulative abnormal return).

DISCUSSION

Based on the results, it is found that the most significant improvement in liquidity went on around Ex-date period and subsequent periods. This can be seen on all the variables used as the proxy for liquidity, such as Zeros: Announcement to Ex-date' to 'Ex-date period'; Volume: 'Post Ex-date period'; Amihud Illiquidity: 'Post Ex-date period'.

Stock split event caused a decrease in transaction costs (zeros) for the Announcement to Ex-date and Ex-date period. However, at the same time there is no significant decrease in the spread, in fact, it has a tendency to increase. The relative spread increases significantly in Announcement to Ex-date and Ex-date period. This increase shows that the investors might be competing to have the stock, which is now affordable. However, starting from Ex-date period, the spread tends to decline, means that there was an improvement in liquidity, although this was not statistically significant.

The other proxy, the volume, shows that it tends to decrease but increase in liquidity only after the ex-date period. The result from volume proves that, in this time frame, the increase in liquidity did not occur automatically after the stock split. However, the volume tended to decrease shortly after the ex-

date which is similar to the results found by Copeland (1979), Lamoureux & Poon (1987); Murray (1985). On the contrary, in the long-run, the volume is likely to increase (Gray et al. 2003). This condition was supported by a decrease in Amihud illiquidity ratio which is statistically significant for the long observation (Post-Ex period).

In connection with the period of crisis experienced by Indonesia in 1997-1999, the stock-split issuance shows a positive impact on the improvement of liquidity, particularly after the Ex-date period. This phenomenon is closely connected with the Trading Range where increasing liquidity theory occurred after ex-date (Huang et.al, 2007). This means that liquidity occurred because the company felt that the stock price is expensive and will reduce the company's ability to obtain funds. This condition is connected with the phenomena which happened in JCI during 1995-1997. Due to the excessive confidence, it pushed the stock prices higher, but when the contagious effect occurred, the investors began to withdraw funds, and companies needed to get fresh funds.

In line with the regression result, it is found that in Announcement Period, all independent variables cannot significantly explain the dependent variable. However in Ex-date period, the results show that the risk increases with the abnormal return. A change in return variance is the same as what was found by Huang et al. (2007), Lamoureux & Poon (1987), Dubofsky (1991), and Desai & Jane (1997) that the higher the variance is, the higher the return will be.

CONCLUSION

Results of this study has shown that the stock split helps increase the liquidity, which occurred in bearish condition (1997-1999). Improvement in liquidity is significantly found around the ex-date period.

According to the regression results in Ex-date period, it is proved that the main factor that significantly affects the existence of abnormal returns around the stock split issue is a change in return variance. This finding is similar to the study by Lamoureux & Poon (1987), Dubofsky (1991), Desai & Jane (1997), and Huang et al. (2007).

RECOMMENDATIONS

Based on this research, here are a few things that are recommended by the author in relation to the stock split and investment strategies in Indonesia in bearish condition:

1. Based on the results, it has been proven that the stock split is not just a cosmetic change, but it also helps improve the company's liquidity. Consequently, stock split may be a reference for companies that have problems in terms of liquidity.
2. In less conducive conditions, stock split will help improving liquidity, although not necessarily change the expected liquidity at Announcement and Ex-date.
3. Stock split becomes one of the main triggers for abnormal return, but the facts prove that the risks go hand in hand with an abnormal rate of return. An observation of each company is fundamental as an important reference in this regard.

References

Ader, M. & Diamant, J. (2006). *The market reaction to stock splits. (Evidence from the Swedish market)*. Gothenburg: GOTEBORGS University, School of Economics and Commercial Law.

Central Bank of Indonesia. (1998-2006). *Annual Report*. Indonesia.

Asquith, P., Healey P., & Palepu, K. (1989). Earnings and stock splits. Accounting Review, 44, 387-403.

Baker, H.K., & Gallagher, P.L. (1980). Management's view of stock splits. *Financial Management*, 9, 73-77.

Baker, H.K., & Powell, G.E. (1993). Further evidence on managerial motives for stock splits. *Quarterly Journal of Business and Economics*, 32, 20-31.

Brennan, M. J., & Copeland, T. E. (1989). Beta changes around stock split: A note. *Journal of Finance*, 43, 1009-13.

Brigham, E.F., & Ehrhardt, M.C. (2005). *Finan-

cial Management: Theory and Practice (11th ed.). Kentucky: Cengage Learning.

Conroy, R., Harris, R, & Benet, B. (1990). The effect of stock splits on bid-ask spreads. *Journal of Finance*, 45, 1665-91.

Copeland, T.E. (1979). Liquidity changes following stock splits. *Journal of Finance*, 34, 115-141.

Dennis, P., & Strickland, D. (2003). The effect of stock splits on liquidity and excess returns: Evidence from shareholder ownership composition. *Journal of Financial Research*, 26(3), 355-370.

Desai, H., & Jain, P.C. (1997). Long-run common stock returns following stock splits and reverse splits. *Journal of Business*, 70, 409-433.

Dolley, J.C. (1993). Characteristics and procedures of common stock split-ups. *Harvard Business Review*, 11, 316-326.

Dubofsky, D.A. (1991). Volatility increase subsequent to NYSE and AMEX stock splits. *Journal of Finance*, 46(1), 421-431.

Fama, E.F., Fisher, L., Jensen, M., & Roll, R. (1969). The Adjustment of Stock Prices to New Information. *International Economic Review*, 10(1), 1-21.

Goyenko, R.Y., Holden, C.W, & Trzeinka, A.D. (2008). *Do stock splits improve liquidity?* (Working paper). Indiana: Indiana University.

Gray, S. F., Smith, T., & Whaley, R.E. (2003). Stock splits: implications for investor trading costs. *Journal of Empirical Finance*, 10, 271-303.

Grinblatt, M.S., Masulis, R. W., & Titman, S. (1984). The valuation effects of stock splits and stock dividends. *Journal of Financial Economics*, 13, 461-90.

Horngren, C.T., Harrison, W.T., & Smith, B.L. (2002). *Accounting* (5th ed.). New Jersey: Prentice Hall.

Huang, G.C., Kartono, L., & Ming-Shiun, P. (2007). *Liquidity changes around stock splits*. Pennsylvania: Pennsylvania State System of Higher Education, Office of the Counselor.

Kadapakkam, P.R., Krishnamurthy, S., & Tse, Y. (2005). Stock splits, broker promotion, and decimalization. *Journal of Financial and Quantitative Analysis*, 40, 873-895.

Lamoureux, C. G. & Poon, P. (1987). The market reaction to stock splits. *Journal of Finance*, 42, 1347-1370.

Lakonishok, J. and Lev, B.(1987). Stock splits and stock dividends: why, who and when. *Journal of Finance*, 42, 913-32.

Lesmond, D., Odgen J., Trzeinka C. (1999). A new estimate of transaction costs. *Review of Financial Studies*, 12, 1113-1141.

Libby, R., Libby, P.A., & Short, D.G. (2001). *Financial Accounting*. Ohio: McGraw Hill.

Maloney, M.T., & Mulherin, J.H. (1992). The effects of splitting on the ex: A microstructure reconciliation. *Financial Management*, 21, 44-59.

McNichols, M., & Dravid, A. (1990). Stock dividends, stock splits, and signaling. *Journal of Finance*, 45, 857-79.

Murray, D. (1985). Further evidence on the liquidity effects of stock splits and stock dividends. *Journal of Financial Research*, 8, 59-67.

Muscarella, C., & Vetsuypens, M. (1996). Stock splits: signaling or liquidity? The case of ADR' solo splits. *Journal of Financial Economics* 42, 3-26.

Nugraha, U. (2004). *Secangkir teh hangat pasar modal*. PT. Gramedia Pustaka Utama.

Sears, R.S., & Trennepohl. (1993). *Investment Management*. New York: Dryden Press.

Schultz, P. (2000). Stock splits, tick size, and sponsorship. *Journal of Finance*, 55, 429-450.

Wang, J., & Rhee, S G. (2009). Foreign institutional ownership and stock market liquidity: Evidence from Indonesia. CICF and Australasian Finance and Banking Conferences.

www.investopedia.com. Retrieved, July 17, 2009.

www.bi.go.id. Retrieved, November 25-27, 2009

www.wikipedia.com. Retrieved, November 27, 2009

www.bapepam.go.id. Retrieved, November 26-27, 2009.

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A REVIEW OF U.S. FEDERAL FUNDS RATE IMPACT ON THE STOCK RETURN

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บทคัดย่อ

แม้จะมีงานวิจัยหลายชิ้นได้ศึกษาผลกระทบของนโยบายทางการเงินของสหรัฐต่อราคาหุ้นภายในประเทศ แต่งานวิจัยที่เกี่ยวข้องกับผลกระทบของนโยบายทางการเงินของสหรัฐต่อราคาหุ้นต่างประเทศที่เป็นตลาดหุ้นใหม่ๆ โดยเฉพาะการศึกษาแบบลงรายละเอียดหุ้นรายตัวนั้นมีค่อนข้างน้อย วัตถุประสงค์ของการศึกษานี้เพื่อทบทวน การศึกษาในอดีตที่เกี่ยวข้องกับผลกระทบของนโยบายทางการเงินของสหรัฐต่อราคาหุ้นภายในประเทศและราคาหุ้น ต่างประเทศ ทั้งในเชิงทฤษฎีและในเชิงการทดลอง เพื่อจะได้จุดประกายการทำวิจัยต่อไปในอนาคต

Abstract

Although a proliferation of empirical studies has examined the impact of U.S. monetary policy action on the domestic stock price, the research on the impact of U.S. monetary policy action on the foreign stock price in the emerging financial market, especially in disaggregate level, remains relatively unexplored. The objective of this research is to review the theoretical evidence and the empirical evidence of how U.S. monetary policy decision affects the stock price both in the domestic context and in the international context in order to shed some light for further research.

INTRODUCTION

The Efficient Market Hypothesis assets that asset price should reflect all available information (Fama, 1970). The information flow includes the firm specific announcement (Fama, Fisher, Jensen, & Roll, 1969; Patell & Wolfson, 1984) and the macroeconomic announcement (Waud, 1970; Flannery & Protopapadakis, 2002; Boyd, Hu, & Jagannathan, 2005). There are two main findings of previous literature in examining the relationship between the macroeconomic announcements and the stock price. The first finding reveals that the stock price is significantly affected by the monetary policy announcement, rather than the non-monetary policy announcement (Hardouvelis, 1987; Connolly & Wang, 2003; Flannery & Protopapadakis, 2002). The second finding reveals that the announcement in a foreign country is more significant than the announcement in a domestic country in explaining the variation in stock price (Johnson & Schembri, 1990; Connolly &

Wang, 2003; Souki, 2008; Li, Iscan, & Xu, 2010). With a more integrated financial market, the monetary policy announcement provides the effect on the domestic financial asset price and the foreign financial asset price. The world financial markets have been raising their concerns about such impact.

Despite its importance, the impact of the U.S. monetary policy action on the foreign stock price in the emerging financial market, especially in disaggregate level, remains relatively unresearched. The objective of this paper, therefore, is to shed some light on the effect of the U.S. monetary policy decision on stock price both in the domestic context and in the international context in order to provide some room for further research.

LITERATURE REVIEW

Monetary policy is the policy implemented by the Central Bank to maintain the stable price and

the sustainable economic growth. Bernanke & Mihov (1998) argue that the Federal Funds rate outperforms the other instrument in measuring the U.S. monetary policy action after the Greenspan era in 1988. The Federal Funds rate is widely used as a proxy of the U.S. monetary action especially after the 1994 (Bernanke & Blinder, 1992; Bernanke & Mihov, 1998; Swanson, 2006; Gurkaynak, Sack, & Swanson, 2007). Since the Federal Funds rate is a good proxy of U.S. monetary policy (Bernanke & Mihov, 1998), the information on the Federal Funds rate target provides the information on the U.S. monetary policy action. It is, therefore, necessary to understand how the monetary policy affects the stock market.

Theoretical Evidence

The impact of the monetary policy on the stock return can be explained by the Modigliani life cycle model (Modigliani, 1971) and the Tobin Q model (Tobin, 1969). In the Modigliani life cycle model, the households' consumption depends on the real capital, the human capital and the household wealth. The households' consumption, therefore, depends on the stocks since the stock is one class of asset which determines the households' wealth (Svensson & Van Wijinbergen, 1989). A hike in interest rate increases the firm's cost of capital driving down the present value of future cash flow and the stock price. When the stock prices reduces, the wealth drops, thereby decreasing the amount of consumption. In the investment side, Tobin's Q, which equals to the stock price divided by the replacement cost, has been used as an indicator of firm's investment (Chung & Wright, 1998). If stock prices drop, the Tobin's Q and the investment reduce. There are 3 well known hypotheses in explaining the impact of monetary policy on the asset price, the Expected Real Interest Rate Hypothesis, the Expected Risk Premium Hypothesis, and the Expected Inflation Hypothesis.

The Expected Real Interest Rate Hypothesis asserts that a tightening monetary policy increases the real interest rate, which reduces the stock price because of an increase in the real discount rate and a reduction in real earning (cash flow) (Hardouvelis, 1987; Thorbecke & Alami, 1994; He, 2006). The Expected Risk Premium Hypothesis also predicts

an inverse relationship between the tightening monetary policy and the stock price (Fama, 1984; Bernanke & Kuttner, 2005; Bredin, Hyde, Nitzsche, & O'Reilly, 2007; Ranaldo & Rossi, 2010). The risk premium consists of the market risk premium and the firm's specific beta. The current beta reflects the current information on the firm return, the market return and the risk free interest rate. If the Federal Reserve increases the target rate, the firms may have a higher financing cost, thereby resulting in the reduction in the future profit. As the uncertainty on the firm's profit increases, the investor expects a higher risk premium to compensate for the incremental risk. If the expected rate of return increases, the stock prices reduce. The Expected Inflation Hypothesis posits that an unanticipated reduction in money supply (tightening monetary policy) slows down the heat in inflation, which in turn, increasing the future real profit and the after tax real dividend. The stock price, therefore, becomes more attractive. A higher demand in stock pushes up the stock price (Pearce & Roley, 1983; Chami, Cosimano, & Fullenkamp, 1999, Flannery & Protopapadakis, 2002).

The impact of the change in the U.S. monetary policy action on the foreign stock price has been increasingly examined in recent years. The change in the U.S. monetary policy action affects the stock return in the foreign country through several channels. Some channels are consistent with the impact of change in U.S. monetary policy action on the domestic stock return. There are four adjustment mechanism of how the international monetary policy transmits to the domestic stock price, where the degree of the transmission depends on the level of the real (trade) integration (Ehrmann & Fratzscher, 2006; Li et al., 2010) and the financial integration (Hausman & Wongswan, 2006; Ehrmann & Fratzscher, 2006; Wongswan, 2009).

The first adjustment mechanism is called the capital market adjustment (Bailey; 1990, Ehrmann & Fratzscher, 2006; Wongswan, 2009). The adjustment is based on the Contagion Hypothesis (King & Wadhwani, 1990; Karolyi & Stulz, 1996). It asserts that an increase in U.S. monetary policy rate push up the U.S. real interest rate. This reduces the U.S. asset price. With an increasing integrated financial market, the arbitrage mechanism will adjust

the foreign asset return move until equalization of the U.S. asset return. The foreign asset price is, therefore, dropped. The second adjustment is called the portfolio adjustment (Ehrmann & Fratzscher, 2006; Wongswan, 2009; Karim, 2009). It argues that an increase in U.S. monetary policy rate increases the market interest rate. This stimulates the capital flow from foreign market to the U.S. market. The investors will relocate their fund from foreign country to U.S., which in turn pushing the downward pressure on the foreign asset price.

The third adjustment is called the adjustment in expected cash flow (Bailey, 1990; Baks & Kramer, 1999; Ehrmann & Fratzscher, 2006; Wongswan, 2009; Karim, 2009). It relies on the Expected Real Interest Rate Hypothesis (Hardouvelis, 1987) and the trade channel of monetary transmission (Dornbusch, 1980; Stockman & Obstfeld, 1985). Baks & Kramer (1999) entitle this expected cash flow adjustment as the Push Channel since the U.S. tightening monetary policy reduces the amount of U.S. capital outflow pushed to the world economy, hence, investment in foreign country is reduced which then depresses the foreign stock price.

The last adjustment is called the inflation rate adjustment (Bailey, 1990; Baks & Kramer, 1999; Ehrmann & Fratzscher, 2006; Karim, 2009). It relies on the Expected Inflation Hypothesis (Pearce & Roley, 1983; Chami et al., 1999) and the trade channel of monetary transmission (Dornbusch, 1980; Stockman & Obstfeld, 1985). Baks and Kramer (1999) entitle this inflation adjustment as the Pull Channel since the U.S. tightening monetary policy reduces the U.S. current inflation. If the foreign investors perceive the asset price inflation is real, they will reduce the relocation of capital from foreign country to U.S., and finally enhance the foreign stock price.

Empirical Evidence

The early literature examined the relationship between the change in the monetary policy action and the asset price by using the raw change in monetary policy action. The raw change in monetary policy action is the difference between the current value of monetary policy variable and the previous value of monetary policy variable. The common finding re-

veals that the raw change in the monetary policy action negatively affects the stock price (Thorbecke & Alami, 1994; Reinhart & Simin, 1997; Lobo, 2000). However, Smirlock and Yawitz (1985) and Kutter (2001) argue that the raw change in the monetary policy action should be separated into the expected component and the unexpected component and if the market is efficient, the stock price should be affected only by the unexpected component. The most widely used technique in measuring the unexpected component is using the information from the Federal Funds futures (Kutter, 2001; Bomfim, 2003; Bernanke & Kuttner, 2005; Bredin, Gavin, & O'Reilly, 2005; Gurkaynak, Sack & Swanson., 2007; Basistha & Kurov, 2008; Craine & Martin, 2008; Kurov, 2010). Kuttner (2001) initiates this measurement by relying on the logic that the futures price should incorporate all investors' price expectations. The value of the one day change in the Federal Funds futures price during the announcement date, therefore, measures the unexpected component.

Many previous studies measured the effect of U.S. monetary policy action on the global stock market by focusing on the market index return of each country (Johnson & Jensen, 1993; Ehrmann & Fratzscher, 2006; Hausmann & Wongswan, 2006; Wongswan, 2009). Some studies examine the effect of U.S. monetary policy action only on the stock market in European countries (Bailey, 1989; Connolly & Wong, 2003; Baks & Kramer, 1999; Ehrmann, Fratzscher, & Rigobon, 2005; Konrad, 2009). Only a few studies examined the effect of U.S. monetary policy action on the Asian stock return (Bailey, 1990; Goodhart, Mahadeva, & Spicer, 2003; Craines & Martin, 2008; Karim, 2009). The common finding reveals that the world stock return is negatively affected by the raw change in the U.S. monetary policy action (Johnson & Jensen, 1993; Baks & Kramer, 1999; Chancharoenchai, Dibooglu, & Mathur, 2005). If the semi-strong form market efficiency holds, the world stock return is negatively affected only by the unexpected U.S. tightening monetary policy (Johnson & Jenson, 1993; Ehrmann et al., 2005; Hausman & Wongswan, 2006; Ehrmann & Fratzscher, 2006; Craine & Martin, 2008; Wongswan, 2009; Karim, 2009; Li et al., 2010).

The imperfect market condition is added into the domestic evidence in examining whether there is the effect of market imperfection on the domestic stock market response to the change in domestic monetary policy action. The imperfect market condition implies that some firms have the limited ability in accessing the funding source due to the different in the net worth position (Calomiris & Habbard, 1990). The domestic stock return with a high level of market imperfection is more negatively affected by the change in the domestic monetary policy action than the domestic stock return with a low level of market imperfection (Thorbecke, 1997; Ehrmann & Fratzscher, 2004; Basistha & Kurov, 2008). The firm characteristic is a major determinant in explaining the stock market response to the change in monetary policy action.

The firm's characteristic is also added into the international evidence in examining the impact of the change in the international monetary policy action on the domestic stock price (Karim, 2009). However, Karim (2009) focuses only on the firm's size and the firm's cash flow. The result shows that the firms with large sized and high cash flow are more negatively affected by the unexpected change in the U.S. monetary policy action since these firms are usually able to raise their funding sources in the international market. Since the capital market adjustment (Bailey; 1990, Ehrmann & Fratzscher, 2006; Wongswan, 2009) asserts that an unexpected increase in U.S. monetary policy rate stimulates an increase in the global interest, which in turn increases the cost of capital. The firm with a high debt ratio, therefore, should be more affected by the change in international monetary action than the firm with a low debt ratio. Additional, the credit channel literature uses the firm's debt ratio as a measure of the financial constrained condition of the firm (Peersman & Smets, 2005; Bougheas, Mizen & Yalcin, 2006). However, the impact of firm's leverage on the domestic stock return response to the change in the international monetary policy action still remains unexplored.

The domestic evidence includes the Financial Accelator Theory in explaining the impact of the change in the domestic monetary policy action on the domestic stock return under the different economic period (Andersen, Bollerslev, Diebold, &

Vega, 2007; Basistha & Kurov, 2008; Farka, 2009; Ranaldo & Rossi, 2010). There are three widely used economic periods, which are the period in different business cycles, the period in different credit condition and the period in different monetary stance. The international evidence also includes the Financial Accelator Theory into the framework. However, only the period in different business cycle has been examined (Konrad, 2009). The period in different credit condition and the period in different monetary stance are still unexplored, and therefore, it will be interesting to fill the above mentioned gap in examining the impact of change in the Federal Funds rate target on the stock return in the emerging stock markets in deeper detail.

CONCLUSION

The impact of change in the monetary policy action on the stock market has been extensively investigated in many years. However, the impact of change in the international monetary policy action on the domestic stock market is unexplored with several gaps. One gap relies on the firm's characteristic. The other gap relies on the period in different economic condition. Since the impact of the change in the international monetary policy action on the domestic stock return is important for the academicians, the investors, and the policy markers, the above mentioned gaps should be filled. The investor can improve the corporate financing decision and the asset allocation decision by incorporating such impact into the information. The investors also gain a diversification benefit by including the stocks which absorb the different impacts. The policy maker can improve the efficiency in formulating the policy. If the change in the international monetary policy action affects the domestic stock market, the domestic policy maker should include such impact into consideration. Otherwise, it implies that the domestic policy maker can implement the independent monetary policy action.

BIBIIOGRAPHY

Andersen, T., Bollerslev, T., Diebold, F., & Vega,

C. (2007). Real - time price discovery in stock, bond and foreign exchange markets. *Journal of International Economics*, 73, 251-277.

Bailey, W. (1989). The effects of U.S. money supply announcements on Canadian stock, bond, and currency prices. *Canadian Journal of Economics*, 22(3), 607 - 618.

Bailey, W. (1990). U.S. money supply announcements and Pacific Rim stock markets: Evidence and implications. *Journal of International Money and Finance*, 9(3), 344-356.

Baks, K., & Kramer, C. (1999). Global liquidity and asset prices: Measurements, implications, and spillovers. *International Monetary Fund Working Paper*, 99/168.

Basistha, A., & Kurov, A. (2008). Macroeconomic cycles and the stock market's reaction to monetary policy. *Journal of Banking and Finance*, 32(12), 2606-2616.

Bernanke, B., & Blinder, A. (1992). The Federal Funds rate and the channels of monetary transmission. *American Economic Review*, 82(4), 901-921.

Bernanke, B., & Kuttner, K. (2005). What explains the stock market's reaction to Federal Reserve policy? Journal of Finance, 60(3), 1221-1257.

Bernanke, B., & Mihov, I. (1998). Measuring monetary policy. *Quarterly Journal of Economics*, 113(3), 869-902.

Bomfim, A. (2003). Pre - announcement effects, news effects, and volatility: Monetary policy and the stock market. *Journal of Banking and Finance*, 27(1), 133-151.

Bougheas, S., Mizen, P., & Yalcin, C. (2006). Access to external finance: Theory and evidence on the impact of monetary policy and firm - specific characteristics. *Journal of Banking and Finance*, 30(1), 199-227.

Boyd, J., Hu, J., & Jagannathan, R. (2005). The stock market's reaction to unemployment news: Why bad news is usually good for stocks. *Journal of Finance*, 60(2), 649-672.

Bredin, D., Gavin, C., & O'Reilly, G. (2005). U.S. monetary policy announcements and Irish stock market volatility. *Applied Financial Economics*, 15(17), 1243-1250.

Bredin, D., Hyde, S., Nitzsche, D., & O'Reilly, G. (2007). U.K. stock returns and the impact of

domestic monetary policy shocks. *Journal of Business Finance and Accounting*, 34(5/6), 872-888.

Calomiris, C., & Hubbard, R. (1990. Firm heterogeneity, internal finance and credit rationing. *Economic Journal*, 100(399), 90-104.

Chami, R., Cosimano, T., & Fullenkamp, C. (1999). The stock market channel of monetary policy. *International Monetary Fund Working Paper*, 99/22.

Chancharoenchai, K., Dibooglu, S., & Mathur, I. (2005). Stock returns and the macroeconomic environment prior to the Asian crisis in selected Southeast Asian countries. *Emerging Markets Finance and Trade*, 41(4), 38-56.

Chung, K., & Wright, P. (1998). Corporate policy and market value: A q - theory approach. *Review of Quantitative Finance and Accounting*, 11(3), 293-310.

Connolly, R., & Wang, F. (2003). International economic equity market comovements: Economic fundamentals or contagion. *Pacific Basin Finance Journal*, 11(1), 23-43.

Craine, R., & Martin, V. (2008). International monetary policy spillovers. *Journal of International Economics*, 75(1), 180-196.

Dornbusch, R. (1980). Open economy macroeconomics. New York: Basic Books.

Ehrmann, M., & Fratzscher, M. (2004). Taking stock: Monetary policy transmission to equity markets. *Journal of Money, Credit and Banking*, 36(4), 719-737.

Ehrmann, M., & Fratzscher, M. (2006). Global financial transmission of monetary policy shocks. *European Central Bank Working Paper*, 616.

Ehrmann, M., Fratzscher, M., & Rigobon, R. (2005). Stocks, bonds, money markets and exchange rates: *Measuring international financial transmission*. NBER Working Paper, 11166.

Fama, E. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance*, 25(2), 383-417.

Fama, E. (1984). Forward and spot exchange rates. *Journal of Monetary Economics*, 14(3), 319-338.

Fama, E., Fisher, L., Jensen, M, & Roll, R. (1969). The adjustment of stock prices to new informa-

tion. *International Economic Review*, 10(1), 1-21.

Farka, M. (2009). The effect of monetary policy shocks on stock prices accounting for endogeneity and omitted variable biases. *Review of Financial Economics*, 18(1), 47-55.

Flannery, M., & Protopapadkis, A. (2002). Macroeconomic factors do influence aggregate stock returns. *Reviews of Financial Studies*, 15(3), 751-782.

Goodhart, C., Mahadeva, L., & Spicer, J. (2003). Monetary policy's effects during the financial crises in Brazil and Korea. *International Journal of Finance and Economics*, 8(1), 55-79.

Gurkaynak, R. , Sack, B., & Swanson, E. (2007). Market based measures of monetary policy expectations. *Journal of Business and Economic Statistics*, 25, 201-212.

Hardouvelis, G. (1987). Macroeconomic information and stock prices. *Journal of Economics and Business*, 39(2), 131-140.

Hausman, J., & Wongswan, J. (2006). Global asset prices and FOMC announcement. *International Finance Discussion Papers*, 886.

He, L. (2006). Variations in effects of monetary policy on stock market returns in the past four decades. *Review of Financial Economics*, 15(4), 331-349.

Johnson, R., & Jensen, G. (1993). The reaction of foreign stock markets to U.S. discount rate changes. *International Review of Economics and Finance*, 2(2), 181-193.

Johnson, D., & Schembri, L. (1990). A theoretical and structural approaches to modelling Canadian - American macroeconomic interaction. *Empirical Economics*, 15(4), 367-382.

Karim, Z. (2009). Monetary policy and firm-level stock returns in an emerging market: Dynamic panel evidence from Malaysia. *MPRA Paper*, 23953.

Karolyi, G., & Stulz, R. (1996). Why do markets move together? An investigation of U.S. - Japan stock return co-movements. *Journal of Finance*, 51(3), 951-986.

King, M., & Wadhwani, S. (1990). Transmission of volatility between stock markets. *Review of Financial Studies*, 3(1), 5-33.

Konrad, E. (2009). The impact of monetary policy

surprises on asset return volatility: The case of Germany. *Financial Markets and Portfolio Management*, 23(2), 111-135.

Kurov, A. (2010). Investor sentiment and the stock market's reaction to monetary policy. *Journal of Banking and Finance*, 34(1), 139-149.

Kuttner, K. (2001). Monetary policy surprises and interest rates: Evidence from the Fed Funds futures market. *Journal of Monetary Economics*, 47(3), 523-544.

Li, Y., Iscan, T., & Xu, K. (2010). The impact of monetary policy shocks on stock prices: Evidence form Canada and the United States. *Journal of International Money and Finance*, 29(5), 876-896.

Lobo, B. (2000). Asymmetric effects of interest rate changes on stock prices. *Financial Review*, 35(3), 125-144.

Modigliani, F. (1971). *Consumer spending and monetary policy: The linkage*. Boston: Federal Reserve Bank of Boston.

Patell, J., & Wolfson, M. (1984). The intraday speed of adjustment of stock prices to earnings and dividend announcements. *Journal of Financial Economics*, 13(2), 223-252.

Pearce, D., & Roley, V. (1983). The reaction of stock prices to unanticipated changes in money: A note. *Journal of Finance*, 38(4), 1323-1333.

Peersman, G., & Smets, F. (2005). The industrial effects of monetary policy in the Euro area. *Economic Journal*, 115(503), 319-342.

Ranaldo, A., & Rossi, E. (2010). The reaction of asset markets to Swiss national bank communication. *Journal of International Money and Finance*, 29(3), 486 -503.

Reinhart, V., & Simin, T. (1997). The market reaction to Federal Reserve policy action from 1989 to 1992. *Journal of Economics and Business*, 49(2), 149-68.

Smirlock, M., & Yawitz, J. (1985). Asset returns, discount rate changes, and market efficiency. *Journal of Finance*, 40(4), 1141-1158.

Souki, K. (2008). Assessing the effects of U.S. shock on the Canadian economy using alternative identification methods. *North American Journal of Economics and Finance*, 19(2), 193-213.

Stockman, A., & Obstfeld, M. (1985). E*xchange*

rate dynamics. Handbook of international economics, Amsterdam: North-Holland.

Svensson, L., & Van Wijinbergen, S. (1989). Excess capacity, monopolistic competition and international transmission of monetary disturbances. *Economic Journal*, 99(397), 785-805.

Swanson, E. (2006). Have increases in Federal Reserve transparency improved private sector interest rate forecasts?. *Journal of Money, Credit, and Banking*, 38(3), 791-819.

Thorbecke, W. (1997). On stock market returns and monetary policy. *Journal of Finance*, 52(2), 635-654.

Thorbecke, W., & Alami, T. (1994). The effect of changes in the Federal Funds rate target on stock prices in the 1970s. *Journal of Economics and Business*, 46(1), 13-19.

Tobin, J. (1969). A general equilibrium approach to monetary theory. *Journal of Money*, Credit, and Banking, 1(1), 15-29.

Waud, R. (1970). Public interpretation of Federal Reserve discount rate changes: Evidence on the announcement effect. *Econometrica*, 38(2), 1141-1158.

Wongswan, J. (2009). The response of global equity indexes to U.S. monetary policy announcement. *Journal of International Money and Finance*, 28(2), 344-365.

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MANAGEMENT OF THE INITIAL PUBLIC OFFERING PERFORMANCE: EMPIRICAL EVIDENCE FROM THE THAI STOCK MARKET

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บทคัดย่อ

การวิจัยครั้งนี้มีจุดมุ่งหมายที่จะศึกษาถึงปัจจัยที่กำหนดผลตอบแทนของการเสนอขายหลักทรัพย์ต่อประชาชนในครั้งแรกในประเทศไทย โดยเฉพาะปัจจัยที่เกิดขึ้นตั้งแต่ขั้นตอนการออกหลักทรัพย์จนถึงวันเข้าทำการซื้อขายหลักทรัพย์ในวันแรก ประกอบด้วย 6 ปัจจัยหลักซึ่งได้แก่ ชื่อเสียงของผู้จัดจำหน่ายหลักทรัพย์ สัดส่วนการถือครองหลักทรัพย์ของผู้ถือหุ้นเดิม การตั้งราคาหลักทรัพย์โดยการสำรวจความต้องการจากนักลงทุนสถาบัน สัดส่วนการกระจายหลักทรัพย์ต่อนักลงทุนสถาบัน ระยะเวลาของการห้ามทำการซื้อขายหลักทรัพย์และความสนใจในหลักทรัพย์ของนักลงทุน ข้อมูลที่ใช้ในการศึกษาประกอบด้วยหลักทรัพย์ที่เสนอขายต่อสาธารณชนมีจำนวน 152 บริษัท ซึ่งครอบคลุมบริษัทจดทะเบียนในตลาดหลักทรัพย์ระหว่างปี 2001-2011 และได้ใช้สมการถดถอยในการวิเคราะห์ข้อมูลเพื่อที่จะศึกษาถึงความสัมพันธ์และผลกระทบของปัจจัยทั้งหกดังกล่าวที่มีต่ออัตราผลตอบแทนหลักทรัพย์ที่เสนอขายต่อประชาชนในครั้งแรก

จากการวิจัยพบว่า มี 3 ปัจจัยหลักได้แก่ สัดส่วนการถือครองหลักทรัพย์ของผู้ถือหุ้นเดิม สัดส่วนการกระจายหลักทรัพย์ต่อนักลงทุนสถาบัน และความสนใจในหลักทรัพย์ของนักลงทุน เป็นปัจจัยหลักที่มีผลกระทบต่ออัตราผลตอบแทนหลักทรัพย์ที่เสนอขายต่อประชาชนในครั้งแรกในประเทศไทย สัดส่วนการกระจายหลักทรัพย์ต่อนักลงทุนสถาบันเป็นปัจจัยที่ส่งผลกระทบสูงที่สุด ปัจจัยทั้ง 3 ดังกล่าวมีความสัมพันธ์ในทางตรงกันข้ามกับอัตราผลตอบแทนของการเสนอขายหลักทรัพย์ต่อประชาชนในครั้งแรกอย่างมีนัยสำคัญ นักลงทุนควรพิจารณาหลักทรัพย์ที่เสนอขายหลักทรัพย์ต่อประชาชนในครั้งแรก โดยมีสัดส่วนการถือครองหลักทรัพย์ของผู้ถือหุ้นเดิมที่อยู่ในระดับต่ำ และสัดส่วนการกระจายหลักทรัพย์โดยส่วนใหญ่ควรกระจายให้แก่นักลงทุนรายย่อยมากกว่านักลงทุนสถาบัน นอกจากนี้นักลงทุนควรระมัดระวังการรับรู้ข่าวสารที่ได้จากหนังสือพิมพ์ก่อนตัดสินใจในการลงทุน

Abstract

This research aims to explore the determinants of the underpricing of IPO in Thailand. The relationships between the underpricing of IPO and the major elements derived during and after the IPO process until the first trading day are examined. Six major elements are underwriter reputation, ownership concentration, book-building, IPO allocation to institutional investors, the length of the lock up period, and investor interest. The data comprise almost the whole population of 152 IPO companies listed on the Stock Exchange of Thailand (SET) between 2001 and 2011. Cross-sectional regression models are employed.

It is found that only three major elements: ownership concentration, IPO allocation to institutional investors, and investor interest are the key determinants of the underpricing in Thailand. IPO allocation appears to be the strongest factor. These three factors are negatively related to the underpricing. IPO companies that have low ownership retention and allocate their shares to the retail investors can generate a higher initial return. Investors should be cautious when absorbing IPO information from newspapers.

Key words: underpricing, initial public offering, underwriter reputation, ownership concentration, book-building, IPO allocation, the length of the lock up period, and investor interest.

INTRODUCTION

Asian countries are playing an increasingly significant role in the global economy. Their capital markets are stronger than ever. By 2010, the number of newly listed companies in Asia, particularly China, India, and Hong Kong, peaked at 1,075 companies going public. Greater China (China, Hong Kong and Taiwan) is the world's largest holders of raised capital with over USD130 billion from 440 IPOs in 2010, accounting for 46% of global raised capital. India is ranked second with over USD8 billion from 63 IPOs. Philippines is ranked lowest in terms of IPO deals in Asia with only USD283 million from 5 IPOs, followed by Thailand which had only USD266 million from 11 IPOs (Ernst & Young 2011; WFE). Moshirian, Ng, and Wu (2010) have documented that initial returns during 1991-2004 in emerging Asian markets, China (202.63%), Korea (70.30%) and Malaysia (61.81%) far exceed those in Asian markets, Hong Kong (21.43%), Japan (34.04%) and Singapore (33.10%). However, Thailand, another Asian country in an emerging market, has an average initial return of only 18% from 154 IPOs between 2001 and 2011, which is far less than those of other emerging Asian economies (Stock Exchange of Thailand, 2011). The different degrees of such initial return and the number of IPOs suggest that there are some market-specific features in Thailand that influence initial return and IPO activity. The primary concern is how to increase the activity of IPOs in Thailand, which will in turn improve the number of listed companies, the market capitalization and finally enhance the strength of the country's economy.

Initial returns are the reflections of two components; private information and public information (Loughran & Ritter, 2002). Private information is revealed by the investors' demand and the firm's valuation during the IPO process while public information is the incremental information publicized after the IPO process until the first trading day. Initial returns are the aggregate of underwriters' valuation plus some incremental information given by the market. Key determinants of IPO initial return derived during and after the IPO process until the first trading day in a variety of market environments include underwriter reputation, ownership concentration, pricing procedure, IPO allocation, length of lock up period and investor interest (Carter, Dark, & Singh, 1998; Venkatesh & Neupane, 2005; Chahine, 2007; Jenkinson & Jones, 2007; Tirapat, 2004; Reese, 1998). Given other issues such as corporate governance and tax incentive are constant, all of these elements are focused in this study. This can fully capture and replicate the real business practices since such elements simultaneously exist and are inevitable in any IPO activity, whereas the existing literature pronounces on only a specific element to performance at a time. In addition, the existing literatures are mostly concentrated in the U.S. as well as other countries in developed market whereas the existing literatures on the IPO performance in Thailand are limited (Logue, 1973; Ibbotson, 1975; Baron, 1982; Ritter, 1984, 1991; Rock, 1986; Carter & Manaster, 1990; Aggarwal & Rivoli, 1990; Loughran & Ritter, 1995).

LITERATURE REVIEW

IPO Performance

Most studies find the short-run IPO performance or positive initial returns known as "underpricing" after companies go public (Moshirian et al., 2010; Vong & Trigueiros, 2010; Zouari, Boudriga & Taktak, 2009; Vithessonthi, 2008b; Yeh, Shu & Guo, 2008; Chen, Choi & Jiang, 2007; Zheng, 2007) (Table 1). Underpricing is measured by the percentage difference between the first-day closing price in the secondary market and the offering price at which the IPO shares were sold in the primary market (Chan, 2010; Shi-yu & Chang, 2008; Ritter, 1998). It can be alternatively measured as the amount of "money left on the table", calculated by the difference between the first-day closing price and the offer price, multiplied by the number of shares sold at the IPO (Loughran & Ritter, 2002).

Table 1: International Evidence of IPO Short Run Performance

Country	Author	Sample Size	Time Period	Avg. Initial Returns (%)
Argentina*	Eijgenhuijsen & van der Valk (2006)	20	1991 - 1994	4.4
Australia	Dimovski & Brooks (2004)	358	1994 - 1999	25.6
Australia*	Lee, Taylor, & Walter; Woo; Pham; Ritter	1,103	1976 - 2006	19.8
Austria*	Aussenegg	96	1971 - 2006	6.5
Belgium*	Rogiers, Manigart & Ooghe; Manigart; DuMortier; Ritter	114	1984 - 2006	13.5
Brazil*	Aggarwal, Leal, & Hernandez; Saito (2006)	180	1979 - 2006	48.7
Bulgaria*	Nikolov	9	2004 - 2007	36.5
Canada*	Jog & Riding; Jog & Srivastava; Kryzanowski, Lazrak, & Rakita; Ritter	635	1971 - 2006	7.1
Canada	Kooli & Suret (2001)	445	1991 - 1998	20.6
Canada	Zheng (2007)	2,493	1980 - 1997	12.2
Chile*	Aggarwal, Leal, & Hernandez; Celis & Maturana; Ritter	65	1982 - 2006	8.4
China*	Chen, Choi, & Jiang (A-shares) (2007)	1,394	1990 - 2005	164.5
China	Chan, Wang, & Wei (2004)	570 (A-Share)	1993 - 1998	178(A-Share)
China	(2004)	39 (B-Share)	1993 - 1998	116(B-Share)
China	Chi & Padgett (2005)	668	1996 - 2000	129.2
China	Shi-yu & Chang (2008)	782	1991 - 2004	130.3
Cyprus*	Gounopoulos, Nounis, & Stylianides (2005)	51	1999 - 2002	23.7
Denmark*	Jakobsen & Sorensen; Ritter	145	1984 - 2006	8.1
Egypt*	Omran	53	1990 - 2000	8.4
Finland*	Keloharju	162	1971 - 2006	17.2
Finland	Keloharju & Torstila (2002)	29	1987 - 1994	14.9
France*	Husson & Jacquillat; Leleux & Muzyka; Paliard & Belletante; Derrien & Womack; Chahine; Ritter	686	1983 - 2006	10.7
Germany*	Ljungqvist; Rocholl: Ritter; Vismara	700	1978 - 2008	25.3
Greece*	Nounis, Kazantzis, & Thomas; Thomadakis, Gounopoulos, & Nounis	372	1976 - 2007	50.9
Hong Kong	Cheng, Chan, & Mak (2005)	214	1993 - 1997	12.9
Hong Kong*	McGuinness; Zhao & Wu; Ljungqvist & Yu; Fung, Gul, & Radhakrishnan; Ritter	1,008	1980 - 2006	15.9

Country	Author	Sample Size	Time Period	Avg. Initial Returns (%)
Hong Kong	Vong & Trigueiros (2010)	480	1994 - 2005	6.9
India*	Marisetty & Subrahmanyam	2,811	1990 - 2007	92.7
Indonesia*	Hanafi; Danny; Suherman	339	1989 - 2008	21.5
Iran*	Bagherzadeh (2006)	279	1991 - 2004	22.4
Ireland*	Ritter	31	1999 - 2006	23.7
Israel*	Kandel, Sarig, & Wohl; Amihud & Hauser; Ritter	348	1990 - 2006	13.8
Italy	Cassia, Giudici, Paleari, & Redondi (2004)	182	1985 - 2001	21.9
Japan*	Fukuda; Dawson & Hiraki; Hebner & Hiraki; Pettway & Kaneko; Hamao, Packer, Ritter; Kaneko & Pettway; Ritter	2,628	1970 - 2008	40.1
Jordan*	Marmar	53	1999 - 2008	149
Korea*	Dhatt, Kim & Lim; Ihm; Choi & Heo; Mosharian & Ng; Cho; Ritter (2000)	1,490	1980 - 2008	55.2
Malaysia*	Isa; Isa & Yong; Yong	350	1980 - 2006	69.6
Malaysia	Jelic, Saadouni, & Briston (2001)	182	1980 - 1995	99.3
Mexico*	Aggarwal, Leal, & Hernandez; Eijgenhuijsen & Van Der Valk	88	1987 - 1994	15.9
Netherlands*	Wessels; Eijgenhuijsen, & Buijs; Jenkinson, Ljungqvist, & Wilhelm; Ritter	181	1982 - 2006	10.2
New Zealand*	Vos & Cheung; Camp & Munro; Ritter	214	1979 - 2006	20.3
Nigeria*	Ikoku; Achua	114	1989 - 2006	12.7
Norway*	Emilsen, Pedersen & Saettem; Liden; Ritter	153	1984 - 2006	9.6

Country	Author	Sample Size	Time Period	Avg. Initial Returns (%)
Philippines	Sullivan & Unite (1999)	104	1987 -1997	22.7
Philippines*	Sullivan & Unite; Ritter	123	1987 - 2006	21.2
Poland*	Jelic & Briston; Ritter	224	1991 - 2006	22.9
Portugal*	Almeida & Duque; Ritter	28	1992 - 2006	11.6
Russia*	Ritter	40	1999 - 2006	4.2
Singapore*	Lee, Taylor, & Walter; Dawson; Ritter(1998)	519	1973 - 2008	27.4
Singapore	Reber & Fong (2006)	100	1998 - 2000	18
South Africa*	Page & Reyneke; Ali, Subrahmanyam & Gleason; Ritter	285	1980 - 2007	18.0
Spain*	Ansotegui & Fabregat; Alvarez Otera	128	1986 - 2006	10.9
Sri Lanka*	Samarakoon	115	1987 - 2007	48.9
Sweden*	Rydqvist; Schuster; Simonov; Ritter	406	1980 - 2006	27.3

Country	Author	Sample Size	Time Period	Avg. Initial Returns (%)
Switzerland*	Kunz, Drobetz, Kammermann, & Walchli; Ritter	159	1983 - 2008	28.0
Switzerland	Kunz & Aggarwal (1994)	42	1983 - 1989	35.8
Taiwan*	Chen (1997)	1,312	1980 - 2006	37.2
Taiwan	Yeh, Shu & Guo (2008)	218	1992 - 2001	28.9
Thailand	Allen et al. (1999)	150	1985 - 1992	63.5
Thailand	Lonkani (1999)	292	1987 - 1997	46.7
Thailand*	Wethyavivorn & Koo-smith; Lonkani & Tirapat; Ekkayokkaya and Pengniti	459	1987 - 2007	36.6
Thailand	Vithessonthi (2008a,b)	123	2000 - 2005	19.9
Tunisia	Naceur (2000)	12	1992 - 1997	1.6
Tunisia	Zouari, Boudriga, & Taktak (2009)	34	1992 - 2008	17.8
Turkey*	Kiymaz; Durukan; Ince; Kucukkocaoglu (2000)	315	1990 - 2008	10.6
United Kingdom*	Dimson; Levis	4,198	1959 - 2008	16.3
United Kingdom	Goergen, Khurshed & Mudambi (2007)	228	1991 - 1995	9.7
United States*	Ibbotson, Sindelar & Ritter; Ritter	12,028	1960 - 2008	16.9
United States	Li, Zheng, & Melancon (2005)	1,673	1993 - 2000	23.5
United States*	Dimson; Levis	4,198	1959 - 2008	16.3
United States*	Ibbotson, Sindelar & Ritter; Ritter	12,028	1960 - 2008	16.9
United States	Loughran & Ritter (2004)	6,169	1980 - 2000	18.9
United States	Nimalendran, Ritter, & Zhang (2007)	3,499	1993 - 2001	27.1

**Sources:** Adapted from Loughran, Ritter, & Rydqvist, (2010)

The Triangular Relationship in an IPO Activity

Chemmanur and Fulghieri (1994) have identified three major parties involved; issuer, investor and underwriter in an IPO activity (Figure 1). Initially, the issuer appoints an underwriter to help determine which type of security to be issued, best offering (subscription) price and time to bring it to the market (Chen, Fok and Wang, 2006). The reputation of underwriter is the first element that influences the IPO performance. The discussion between underwriters and issuers on the percentage of ownership holding after companies go public is held. The percentage of ownership holding is used to manage and control the company. Ownership concentration is a second variable. During the pricing process, lead underwriter gathers the investors' demand by using book building, the third variable. At the same time, underwriters need to allocate new issues based upon investors' information disclosed. IPO allocation represents the fourth variable determining IPO performance. As regulated by the Securities Exchange Commission (SEC), the lock-up period is established for a specified period of time to prevent sales of new equity issues from inside investors. Lockup agreement influences stock reaction and IPO valuation, representing the fifth variable. After the IPO process until the first trading day, the press referring to newspaper citation, a proxy of investor interest can influence the IPO performance. Investor interest is the sixth variable.

When shares are firstly traded on the stock market, it is in the issuer's interest to price the IPO shares below the highest price at which the underwriter can sell, resulting in larger combined proceeds from the initial and second offerings (Chemmanur, 1993). The issuer cannot only raise capital from the public, but can increase also the value of existing holdings when the initial return occurs (Loughran & Ritter, 2002). An underwriter not only receives commission fees from the issuer, but also gains reputation and potential offers when the issues are successful (Carter, 1992). An IPO that is oversubscribed to a greater degree is more associated with underpricing (Chemmanur, 1993). The issuer and underwriter view an underpriced and oversubscribed IPO as successful (Chemmanur, 1993; Muscarella and Vetsuypens, 1989) while the investor views underpricing as a successful IPO. Underpricing is, therefore, the mutual target of the three partie to participate in the IPO activity. Successful IPOs thus are necessarily underpriced (Ritter & Welch, 2002). It is proposed to use the underpricing of IPOs as a proxy for successful IPOs in this study. The number of companies going public is higher when IPOs are underpriced (Lowry & Schwert, 2002).

Figure 1: The Triangular Relationship Among Investors, Issuers, and Underwriters
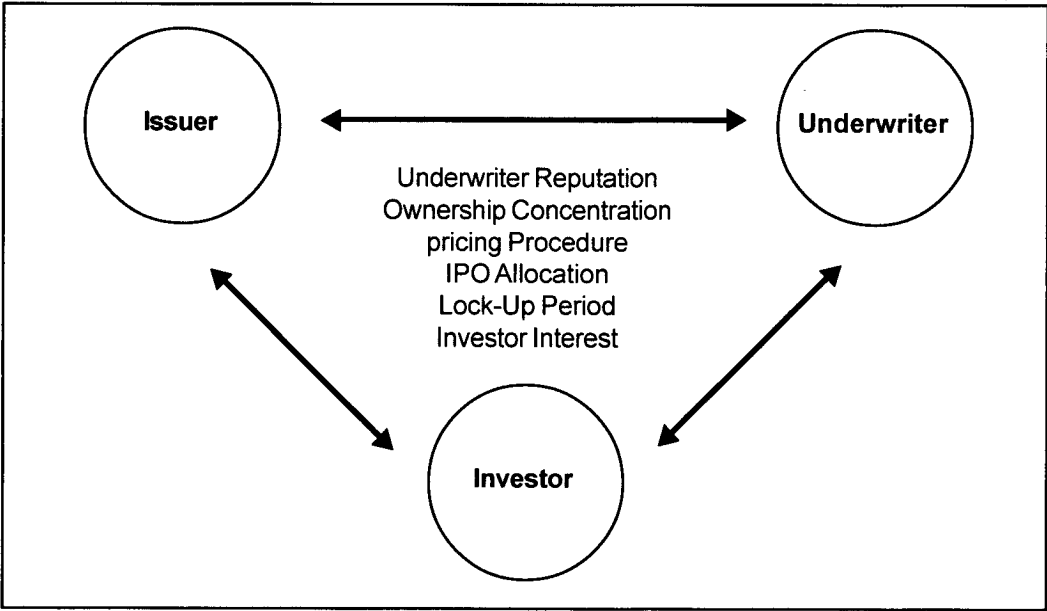
Sources: Developed particularly for this study

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Determinants of IPO Performance

Underwriter Reputation: Underwriters set an offering price that is low sufficiently to attract the demand of investors, but high sufficiently to raise an enough capital for issuers. They have discretion to allocate the shares among investors (Rocholl, 2009). The analysis of the impact of underwriter reputation on IPO initial return is mixed. A negative relationship between the degree of IPO underpricing and the level of underwriter reputation was found (Johnson & Miller, 1988; Carter & Manaster, 1990; Carter, 1992; Helou & Park, 2001; Kenourgious, Papathanasiou, & Melas, 2007). Logue, Rogalski, Seward, and Foster-Johnson (2002) also supported such a relationship over longer period. In contrast, other studies found a positive relationship (Beatty & Welch, 1996; Cooney, Singh, Carter, & Dark, 2001; Jelic, Saadouni, & Briston, 2001; Loughran & Ritter, 2004; Kirkulak & Davis, 2005).

Ownership Concentration: LaPorta, Lopez-de-Silanes, & Shleifer (1999) have reported that a high proportion of shares holding in the primary market can indicate a high quality of firm offerings. The empirical evidence on the ownership to IPO performance is not clear. Connelly, Limpaphayom, and Siraprapasiri (2004), Zheng, Ogden and Jen (2005), and Mayur and Kumar (2009) have found short-run IPO underpricing is positively associated with the degree of ownership concentration, while Venkatesh and Neupane (2005) and Yeh, Shu, & Guo (2008) identified an opposite relationship. Kim, Kitsabunnarat, & Nofsinger (2004) and Wang (2005) have found a curvilinear association.

Pricing Procedure: Book building method is investigated in this study since most of IPO companies in Thailand conduct book building during the pricing process to gather investor demand, especially from institutional investors. Benveniste & Spindt (1989), Cornelli & Goldreich (2001) and Chahine (2007) state that book building allows underwriters to set the IPO price more precisely and decrease underpricing.

IPO Allocation: The existing literature on the IPO allocation to performance is not conclusive. Underwriters use the information from informed investors to determine the offering price and its allocation. This private information is compensated in the form of initial returns. The more the private information received, the greater the underpricing the informed investors should earn. (Benveniste & Spindt, 1989; Hanley & Wilhelm, 1995; Aggarwal, Prabhala, & Puri, 2002; Jenkinson & Jones, 2007). On the contrary, Habib & Ljungqvist (2001) and Ljungqvist & Wilhelm (2002) have found a negative relation.

Lock-Up Period: The lockup agreement can potentially protect investors in the negative reaction of stock price and the chance of underperformance in long-run (Mohan & Chen, 2001). Brav & Gompers (2003) have found a positive relationship between underpricing and lockup length.

Investor Interest: Based on the investor attention model (Merton, 1987), media coverage can lastingly affect the stock valuation. It draws investors more attention to the stocks when they are familiar with them. Several papers have documented the empirical investigation of the positive relation between investor interest and the underpricing (Reese, 1998; Cook, Kieshnick, & Van Ness, 2006; Chahine, 2007; Liu, Sherman, & Zhang, 2009; Da, Engelberg, & Gao, 2009).

HYPOTHESES

The low-risk firms would reveal their strong information to the market through prestigious underwriters. The uncertainty of stock price on IPO stocks would reduce as the asymmetric information decline, thus the closing price on the first trading day could be priced closer to the market price resulting lower underpricing (Betty & Ritter, 1986; Johnson & Miller, 1988; Carter & Manaster, 1990; Carter et al., 1998). On the basis of asymmetric information theory, the first hypothesis states:

> H1: The more prestigious the underwriter, the significantly lower the level of underpricing

Ownership of companies in Thailand is highly concentrated (Connelly et al, 2004). When the proportion of ownership is large, information asymmetry will increase and monitoring control will decrease. The performance of an IPO firm will become lower.

Investors are not willing to pay more for the IPO shares, leading to lower underpricing. Accordingly,

H2: The higher the ownership concentration after an IPO, the significantly lower the level of underpricing

When book building is conducted during pricing, underwriters can obtain information on investors' demand for shares. They can set the offer price closely to their demand, leading to lower initial return on the first trading day (Benveniste & Spindt, 1989; Benveniste & Wilhelm, 1990; Cornelli & Goldreich, 2001. The third hypothesis states:

H3: Firm that conducts book building when pricing has significantly lower level of underpricing

Institutional investors as informed investor reveal their information during book building. In return, underwriter would distribute more portions of IPO to institutional investors. They get more shares and more initial returns than small investors do (Hanley & Wilhelm; 1995, Aggarwal, 2002; Binay, Gatchev, & Pirinsky, 2007). On this basis, the fourth hypothesis states:

H4: The greater the allocation of IPO to institutional investors, the significantly higher the level of underpricing

The lock up period can be used to signal the quality of offerings. It is a commitment tool to reduce moral hazard problem. Based on asymmetric information theory, the fifth hypothesis states:

H5: The greater the length of lock up provision, the significantly higher the level of underpricing

The number of newspaper citation is used as a proxy for the level of investor interest. Whenever the citation is shown on the well-know newspaper, it indicates either that there is sufficient general interest in that company, or the company is doing something remarkable and its citation is probably draw investor interest. In contrast, if a firm is not often cited in any newspaper, it may be little interest in that company among investors (Reese, 1998).

H6: The greater the investor interest, the significantly higher the level of underpricing

Private information gained during the IPO process includes the underwriter reputation, ownership concentration, pricing procedure, IPO allocation, and length of the lock up period. When underwriters acquire private information provided by informed investors, this private information is compensated in the form of initial returns. Hence, the greater the private information received, the higher the underpricing investors should earn. The seventh hypothesis is assumed:

H7: The greater the private information gained during the IPO process, the significantly higher the level of underpricing.

RESEARCH DESIGN

Data on the six major elements and short-runn IPO performance are extracted from the secondary data source. They include database of the SET, the SEC, Country Group Securities Research Department, FinansiaSyrus Securities Research Department, NewsCenter and company prospectus.

Sample

The sample comprises 152 IPOs listed on the SET during January 2001 to August 2011, representing almost the whole population of IPOs on the SET during the period of study.

Measurement

Control Variables. The size of IPO offering and the age of IPO firms are used as control variables. The size of IPO offering is defined in terms of gross proceeds, which are the total number of offered shares sold multiplied by the offer price (Ma, 2007). It is measured by taking the natural logarithm of average gross proceeds of an underwriter's

issue. Company age is measured as the number of years from company incorporation to the IPO offering (Ma, 2007). It is calculated by taking the natural logarithm of one plus the number of years since the IPO company started to operate before going public.

Dependent variable. The dependent variable is the short run performance of IPO measured by the return on the first trading day of the IPO. As suggested by Ritter (1991), Jelic et al. (2001), and Loughran and Ritter (2002), the market adjusted initial return of company is used to measure the short run performance in this study. It is defined as an abnormal return which is the initial return after adjusting for the benchmark return (conventionally the market index return is used). It is measured by the percentage difference between the return of company and the market return.

Independent variables. Two major components; private information and public information, selected in this study are used as the independent variables. The first component of information gained during the IPO process includes the underwriter reputation, ownership concentration, pricing procedure, IPO allocation, and the length of the lock up period. The second component of information derived after the IPO process until the first trading day is investor interest.

a) *Underwriter Reputation:* It is measured by the market share for each underwriter, adapted from the study of Megginson and Weiss (1991). The market share is calculated by the market volume of IPO offerings for each underwriter divided by the total volume of new issues in that year. In this study, underwriter reputation is measured by the lead underwriter's average market share during the three years prior to the IPO.

b) *Ownership Concentration:* The criterion on it for this paper is the sum of the retention of ownership at 5% level or more. In addition, the shareholders related to the major shareholders as reported in the prospectus are also included.

c) *Book Building Pricing Procedure:* The offering price is established depending upon the investor demand during the road show. It is announced in the IPO prospectus.

d) *IPO Allocation:* It is measured by the proportion of shares allocated to institutional investors

relative to all share allocations. It is announced in the IPO selling report submitted to the SEC.

e) *Length of Lock-up Period:* In this study, the length of the silent period is used instead of the length of the lockup period. The difference between the lockup and silent period is that the lock up provision is an agreement between issuers and underwriters whereas the silent period provision is required by the market regulator (the SET) for a specified period of time to prevent sales of new equity issues from inside investors. The length of the silent period is measured by the time to the expiration date of the silent period which is reported to the SEC. It is calculated by the natural logarithm of the length of the silent period (Tirapat, 2004).

f) *Investor Interest:* The number of newspaper citations is counted between the period of offering date and the first trading day. It is calculated by the natural logarithm of the number of newspaper citations (Reese, 1998).

Statistical Technique for Data Analysis

The cross-sectional data are collected to investigate the relationship between six major factors and IPO performance on the first trading day. The first model is used to examine the relationship between six key factors and the initial returns of IPO. The second model is used to standardize the variables in order to compare among six major factors on the initial returns.

The first regression model is:

$$MAIR_i = \beta_o + \beta_1 UR_i + \beta_2 OWN_i + \beta_3 BB_i + \beta_4 INS_i + \beta_5 LOCK_i + \beta_6 II_i + \beta_7 SIZE_i + \beta_8 AGE_i + U_i \qquad (1)$$

The second regression model is:

$$MAIR^*_i = \alpha_o + \alpha_1 UR^*_i + \alpha_2 OWN^*_i + \alpha_3 BB^*_i + \alpha_4 INS^*_i + \alpha_5 LOCK^*_i + \alpha_6 II^*_i + \alpha_7 SIZE^*_i + \alpha_8 AGE^*_i + \mu_i \qquad (2)$$

where

$MAIR_i$ = The market index adjusted initial return of company "i" (%)

UR_i = Underwriter reputation; market

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share of lead underwriter in the prior year to IPO (%)

OWN_i = Ownership concentration (%)

BB_i = A dummy variable that equals 1 when IPO uses the book building pricing procedure and 0 is otherwise.

INS_i = IPO shares allocated to institutional investors (%)

$LOCK_i$ = The length of the silent period (days)

II_i = Investor interest; the number of newspaper citations

$SIZE_i$ = Gross proceeds (million baht)

AGE_i = Age of company from establishing year to IPO offering (years)

β, α = Unknown parameters to be estimated

* = Standardized variables

μ_i = The residual term

DATA AND REGRESSION ANALYSIS

The results indicate that most IPO companies in Thailand are underwritten by non-prestigious underwriters. They have highly concentrated ownership after IPO. IPO shares are mostly allocated to the retail investors. Most IPOs experience a high length of lock up period and have a low degree of investor interest. Almost half of the total IPOs conduct book building. The regression result shows that only ownership concentration, IPO allocation to institutional investors, and investor interest are the key determinants of underpricing in Thailand (Table 2). Among these three elements, IPO allocation appears to be the strongest factor explaining the level of underpricing. The remaining major elements: underwriter reputation, book building and the length of the lock up period are not statistically significant. These elements cannot significantly explain the short run performance of IPOs.

Table 2: Cross-sectional Regression Analysis

Coefficient	Model 1	Model 2[a]
Intercept	-0.1365 (-0.3618)	
Underwriter reputation	-0.2573 (-0.6740)	-0.0606 (-0.6763)
Ownership concentration	**-0.4735 (-1.8072)***	**-0.1439 (-1.8135)***
Book building	0.0027 (0.0407)	0.0038 (0.0408)
IPO allocation to institutional investors	**-0.5031 (-2.8680)*****	**-0.2855 (-2.8780)*****
Length of lock up period	0.0520 (1.2053)	0.0943 (1.2095)
Investor interest	**-0.0579 (-1.6158)***	**-0.1327 (-1.6215)***
Size	**0.0931 (4.3687)*****	**0.3951 (4.3839)*****
Age	-0.0176 (-0.3868)	-0.0312 (-0.3881)
R^2	0.1712	0.1712
Adjusted R^2	0.1248	0.1309
F-statistic	3.6918	
Probability (F-statistics)	0.0006***	
Wald-test (F-statistic)	3.1573	
Probability (F-statistic: Wald-test)	0.0098***	
Observations	152	152

Notes: [a]Model 2 is identical to Model 1, but standardized regression coefficients are used.
The t-statistics are reported under the coefficients in parentheses.
White's (1980) heteroscedastciity consistent standard errors and covariances is applied.
A significance of the 1%, 5%, and 10% levels are denoted with ***, ** and *, respectively.

IMPLICATIONS AND RECOMMENDATIONS

For investors, when making an investment decision on IPO shares, investors should consider IPO companies that have low ownership retention (less than 67%). The majority of IPO shares should be allocated to retail investors rather than institutional investors. Assessment on the IPO shares should be based on the information gained during the IPO process, namely private information, obtained mainly from the company's prospectus. Investors should be cautious when absorbing IPO information from the newspaper since higher numbers of newspaper citations can reduce the stock price on the first trading day.

Recommendations for the issuers are about the improvement of IPO process management. Issuers should reduce their ownership interest in the companies to less than 67%. They should use underwriters who have good relations with retail investors. These investors are the major and regular subscribers of the IPO issues, which can guarantee the success of raising the targeted amount of funds from the market. Lastly, issuers should better communicate their company's value to investors during the IPO process through either the company's prospectus or press release than spend money on media after the IPO process. They should use media such as newspapers for investor relations purposes only. It is not advisable for the IPO companies to use media to manipulate the share price. Issuers should be careful when spending on media since investors perhaps perceive that such spending is used to avert a company's negative prospects (Panu & Peng, 2007).

Underwriters should consider the share allocation as the most important factor for a successful IPO and use their discretion for share allocation to retail investors, especially for the investors who have traded regularly and pay full services of trading commission. Regular investors can assist underwriters as insurance by standing ready to support prices and absorb future issues (Binay et al., 2007). By taking care of their existing investors as minority shareholders in IPO allocation, underwriters can reduce their marketing expenses based on a lower level of marketing effort. In return, underwriters can also provide underpriced IPO as quid pro quo to their existing investors for producing information on a regular basis and for facilitating the pricing and distribution of IPOs (Binay et al., 2007). Underwriters can improve their reputation, build a good relationship between underwriters and investors, and increase the possibility of participation in future offerings.

Furthermore, underwriters should convince issuers to disperse more portions of their ownership to the public because lower ownership retention can increase the initial return of IPO. Finally, for IPO pricing, underwriters do not have to spend more money conducting book building when the size of offering is relative low because there is no difference found between the two pricing procedures: book building and fixed pricing. Neither book building nor fixed pricing influences the initial return of IPO.

Lastly, since the ranking of underwriter reputation has not been officially established in the Thai market, underwriters are recommended to cooperate with the market regulator in setting up an internationally accepted institution to assign such a ranking to underwriters. The rating should be reported in the company's prospectus and widely used as a benchmark to represent the underwriter reputation in the Thai market.

For market regulators, several recommendations are provided. Regulators should recognize that the average size of offering in Thailand is relatively small. It can hinder several factors affecting a successful IPO such as participation from the institutional investor and the benefits of book building pricing. Regulators should encourage the company owners to disperse more portions of their ownership to the public. Punishment for the manipulation of share allocation and share price should be fully enforceable. The merits of privatization should be reiterated to encourage more state owned enterprise going public. If firms or state owned enterprises offer larger proportions of equity, the offering size would then be sufficiently large to induce more participation from institutional investors. Book building would be worth conducting in order to gather demand from the informed investors. The offering price and allocation of shares will better reflect the demand and supply in the market.

With those recommendations, there will be more

successful IPOs in the market and the numbers of companies going public will be higher (Lowry & Schwert, 2002). A better economy will be achieved. As suggested by Yung et al. (2008), the growth of the economy is related to an increase in the number of firms going public.

BIBLIOGRAPHY

Aggarwal, R., & Rivoli, P. (1990). Fads in the Initial Public Offering Market? *Financial Management*, 20, 45-57.

Aggarwal, R., Prabhala, N. R., & Puri, M. (2002). Institutional Allocation in Initial Public Offerings: Empirical Evidence. *The Journal of Finance*, 57, 1421-1442.

Baron, D. P. (1982). A Model of the Demand for Investment Banking Advising and Distribution Services for New Issues. *Journal of Finance*, 37, 955-976.

Benveniste, L. M., & Spindt, P. A. (1989). How Investment Bankers Determine The Offer Price and Allocation of New Issues. *Journal of Financial Economics*, 24, 343-361.

Benveniste, L. M., & Wilhelm, Jr. W. J. (1990). A Comparative Analysis of IPO Proceeds under Alternative Regulatory Environments. *Journal of Financial Economics*, 28, 173-207.

Betty, R. P., & Welch, I. (1996). Issuer Expenses and Legal Liability in Initial Public Offerings. *Journal of Law and Economics*, 39, 545-602.

Binay, M. M., Gatchev, V. A., & Pirinsky, C. A. (2007). The Role of Underwriter-Investor Relationships in the IPO Process. *Journal of Financial and Quantitative Analysis*, 42, 785-810.

Brav, A., & Gompers, P. A. (2003). The Role of Lockups in Initial Public Offerings. *The Review of Financial Studies*, 16, 1-29.

Carter, R. B. (1992). Underwriter Reputation and Repetitive Public Offerings. *The Journal of Financial Research*, 15, 341-354.

Carter, R. B., & Manaster, S. (1990). Initial Public Offerings and Underwriter Reputation. *The Journal of Finance*, 45, 1045-67.

Carter, R. B., Dark, F. H., & Singh, A. K. (1998). Underwriter Reputation, Initial Returns, and the Long-Run Performance of IPO Stocks. *The Journal of Finance*, 53, 285-311.

Chahine, S. (2007). Investor Interest, Trading Volume, and the Choice of IPO Mechanism in France. *International Review of Financial Analysis*, 16, 116-135.

Chan, Y. (2010). Retail Trading and IPO Return in the Aftermarket. *Financial Management*, Winter, 1475-1495.

Chemmanur, T. (1993). The pricing of IPOs: A dynamic Model with Information Production. *Journal of Finance*, 48, 285-304.

Chemmanur, T. J. & Fulghieri, P. (1994). Investment Banker reputation, Information Production, and Financial Intermediation. *Journal of Finance*, 49, 57-79.

Chen, H., Fok, R. C. W., & Wang, Y. (2006). Why Do Underwriters Charge Low Underwriting Fees for Initial Public Offerings in Taiwan? *Journal of Business Finance & Accounting*, 33, 979-1005.

Chen, Z. H., Choi, J. J, & Jiang, C. (2007). Private Benefits in IPOs: Evidence from State-owned Firms. *Working paper*.

Connelly, J. T., Limpaphayom, P., & Siraprapasiri, V. (2004). Ownership Concentration and Initial Public Offering Performance: Empirical Evidence from Thailand. *Chulalongkorn Journal of Economics*, 16, 252-307.

Cook, D., Kieschnick, R., & Ness, R. V. (2006). On the Marketing of IPOs. *Journal of Financial Economics*, 82, 35-61.

Cooney, J., Singh, A., Carter, R., & Dark, F. (2001). "IPO Initial Returns and Underwriter Reputation: Has the Inverse Relationship Flipped in the 1900s?" *Working Paper*, University of Kentucky.

Cornelli, F., & Goldreich, D. (2001). Bookbuilding and Strategic Allocation. *The Journal of Finance*, 56, 2337-2369.

Da, Z., Engelberg, J., & Gao, P. (2009). In Search of Attention. *Working Paper*, University of Notre Dame and University of North Carolina at Chapel Hill.

Ernst & Young. (2011). Global IPO Trends 2011. *Global IPO Report*, 1-28.

Habib, M. & Ljungqvist, A. (2001). Underpricing and Entrepreneurial Wealth Losses in IPOs:

Theory and Evidence. *Review of Financial Studies*, 14, 433-458.

Hanley, K. W., & Wilhelm, W. J. (1995). Evidence on the Strategic allocation of Initial Public Offerings. *Journal of Financial Economics*, 37, 239-257.

Helou, A., & Park, G. (2001). Is There a Signaling Effect of Underwriter Reputation? *The Journal of Financial Research*, 24, 27-43.

Ibbotson, R. G. (1975). Price Performance of common Stock New Issues. *Journal of Financial Economics*, 2, 235-272.

Jelic, R., Saadouni, B., & Briston, R. (2001). Performance of Malaysian IPOs: Underwriters Reputation and Management Earnings Forecasts. *Pacific-Basin Finance Journal*, 9, 457-486.

Jenkinson, T., & Jones, H. (2007). IPO Pricing and Allocation: A Survey of the Views of Institutional Investors. *The Review of Financial Studies*, 22, 1477-1504.

Johnson, J. M., & Miller, R. E. (1988). Investment Banker Prestige and the Underpricing of Initial Public Offerings. *Financial Management*. 17, 19-29.

Kenourgious, D. F., Papathanasiou, S., & Melas, E. R. (2007). Initial Performance of Greek IPOs, Underwriter's Reputation and Oversubscription. *Journal Managerial Finance*, 33, 332-343.

Kim, K. A., Kitsabunnarat, P., & Nofsinger, J. R. (2004). Ownership and Operating Performance in an Emerging Market: Evidence from Thai IPO Firms. *Journal of corporate Finance*, 10, 355-381.

Kirkulak, B., & Davis, C. (2005). Underwriter Reputation and Underpricing: Evidence from the Japanese IPO Market. *Pacific-Basin Finance Journal*, 13, 451-470.

LaPorta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate Ownership Around the World. *Journal of Finance*, 54, 471-518.

Liu, L., Sherman, A. E., & Zhang, Y. (2009). The Role of Media in Initial Public Offerings. *Working Paper*, DePaul University and Hong Kong University of Science and Technology.

Ljungqvist, A. P., & Wilhelm, W. J. (2002). IPO Allocations: Discriminatory or Discretionary? *Journal of Financial Economics*, 65, 167-201.

Logue, D. (1973). Premia on Unseasoned Equity Issues. *Journal of Economics and Business*, 25, 133-141.

Logue, D. E., Rogalski, R. J., Seward, J. K., & Foster-Johnson, L. (2002). What Is Special About the Roles of Underwriter Reputation and Market Activities in Initial Public Offerings? *Journal of Business*, 75, 213-243.

Loughran, T., & Ritter, J. R. (1995). The New Issues Puzzle. *The Journal of Finance*, 50, 23-51.

Loughran, T., & Ritter, J. R. (2002). Why Don't Issuers Get Upset about Leaving Money on the Table in IPOs? *The Review of Financial Studies Special*, 15, 413-443.

Loughran, T., & Ritter, J. R. (2004). Why has IPO Underpricing Changed over Time? *Financial Management*, 33, 5-37.

Loughran, T., Ritter, J. R., & Rydqvist, K. (2010). Initial Public Offerings: International Insights. *Pacific-Basin Financial Journal*, 2, 165-199.

Lowry, M., & Schwert, G. W. (2002). IPO Market Cycles: Bubbles or Sequential Learning? *Journal of Finance*, 57, 1171-1198.

Ma, S. (2007). Information Asymmetry and Valuation Uncertainty, the determination of China's IPO Allocation Procedures. *Applied Financial Economics*, 17, 271-284.

Mayur, M., & Kumar, M. (2009). Ownership and Performance in an Emerging Market: Evidence from Indian IPO Firms. *The Icfai Journal of Applied Finance*, 15, 5-23.

Megginson, W. L., & Weiss, K. A. (1991). Venture Capital Certification in Initial Public Offerings. *Journal of Finance*, 46, 879-903.

Merton, R. C. (1987). A Simple Model of Capital Market Equilibrium with Incomplete Information. *Journal of Finance*, 42, 483-510.

Mohan, N. J., & Chen C. R. (2001). Information Content of Lock-up Provisions in Initial Public Offerings. *International Review of Economics and Finance*, 41, 41-59.

Moshirian, F., Ng, D. & Wu, E. (2010). Model Specification and IPO Performance: New Insights from Asia. *Research in International Business and Finance*, 24, 62-74.

Muscarella, C. J., & Vetsuypens, M. R. (1989). A Simple Test of Baron's Model of IPO Under-

pricing. *Journal of Financial Economics*, 24, 125-135.

Panu, C., & Peng, C. (2007). Relationship between advertising budget and initial return on IPO. *International Journal of Business Research*, 7.

Reese, W. A. (1998). IPO Underpricing, Trading Volume, and Investor Interest. *Working Paper*, Tulane University.

Ritter, J. R. (1984). The "Hot Issue" Market of 1980. *Journal of Business*, 57, 215-240.

Ritter, J. R. (1991). The Long-run Performance of Initial Public Offerings. *The Journal of Finance*, 46, 3-27.

Ritter, J. R. (1998). Initial Public Offerings. *Contemporary Finance Digest*, 2, 5-30.

Ritter, J., & Welch, I. (2002). A Review of IPO Activity, Pricing, and Allocations. *The Journal of Finance*, 57, 1795-1828.

Rocholl, J. (2009). A Friend in Need is a Friend Indeed: Allocation and Demand in IPO Bookbuilding. *Journal of Financial Intermediation*, 18, 284-310.

Rock, K. (1986). Why New Issues Are Underpriced. *Journal of Financial Economics*, 15, 187-212.

Shi-yu, X., & Chang, L. (2008). The Degree of IPO Underpricing in China. *Journal of Modern Accounting and Auditing*, 4, 32-36.

Stock Exchange of Thailand. (2011). New Listed Companies. Retrieved September 1, 2011, from http://www.set.or.th/set/ipo.do?language=en&country=US.

Tirapat, S. (2004). An Investigation of the Silent Period Expiration in Thailand. *Chulalongkorn Journal of Economics*, 16, 217-251.

Vega, C. (2006). Stock Price Reaction to Public and Private Information. *Journal of Financial Economics*, 2006, 82, 103-133.

Venkatesh, S., & Neupane, S. (2005). Does Ownership Structure Effect IPO Underpricing: Evidence from Thai IPOs. *School of Management, Asian Institute of Technology*, Bangkok, Thailand.

Vithessonthi, C. (2008a). Stock Price Performance of Initial Public Offerings: the Thai Experience. *Journal of International Finance and Economics*, 8, 30-43.

Vithessonthi, C. (2008b). The Short-run Performance of Initial Public Offerings: An Experience Study for Thailand. *The Business Review*, Cambridge, 9, 48-54.

Vong, A., & Trigueiros, D. (2010). The Short-run Price Performance of Initial Public Offerings in Hong Kong: New Evidence. *Global finance Journal*, 21, 253-261.

Wang, C. (2005). Ownership and Operating Performance of Chinese IPOs. *Journal of Banking & Finance*, 29, 1835-1856.

White, H. (1980). A Heteroskedasticity-Covariance Matrix Estimator and a Direct Test for Heteroskedasticity. *Econometrica*, 48, 817-838.

World Federation of Exchanges Member and IMF *International Financial Statistics Yearbook 2010-2004*. Retrieved January 2011, from: http://www.world-exchnages.org

World Federation of Exchanges. (2011). *The Annual Statistics*. Retrieved June 1, 2011, from: http://www.world-exchanges.org/statistics/annual.

Yeh, Y., Shu, P., & Guo, R. (2008). Ownership Structure and IPO Valuation-Evidence from Taiwan. *Financial Management*, 37, 141-161.

Zheng, S. X., Ogden, J. P., & Jen, F. C. (2005). Pursuing Value Through Liquidity in IPOs: Underpricing, Share Retention, Lockup, and Trading Volume Relationships. *Review of Quantitative Finance and Accounting*, 25, 293-312.

Zouari, S. B., Boudriga, A. & Taktak, N. B. (2009). What Determines IPO Underpricing? Evidence from a Frontier Market. *Working Paper*, University of Tunis.

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