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DEVELOPMENT OF ONLINE MASTER'S DEGREE PROGRAMS: A CASE STUDY OF SOCIAL LEADERSHIP, BUSINESS, AND POLITICS

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Abstract

This manuscript studies and develops an online tertiary curriculum with a focus on master's degree programs. The quality and effectiveness of an educational degree is an important factor that will help develop higher education and also build the capacity of the people of the country. The current government policies, including "Thailand 4.0", have focused on the use of technology to connect with various things in people's lives. This includes the field of education. The reason for the push for education is that, at present, human beings have developed their own culture. There has been more evolution. Perceptions have also been changed, which explains the importance of online teaching and learning and the development of an online master's degree program.

Keywords:

Learning system, Online learning, Education technology, Online degree

Introduction

The use of e-learning system in teaching and learning help created effective learning. Factors affecting the development of the curriculum can be classified into internal and external factors. Internal factors are variables in the school system related to the development of school curriculum.

(Kaosayaporn, 2005) These factors affect the development of educational institutions' curriculum in terms of program expansion and course preparation. External factors refer to variables outside the school system related to the development of the school curriculum. The main problem affecting the master's degree program (social leadership, business, and politics) is that

the learners' behavior has changed. The technology of teaching and learning is changing rapidly and the number of online courses is increasing. Given a variety of factor that influences the learning process of a learner, three objectives are developed: 1) To guide the development of teaching and learning of the master's degree program (social leadership, business, and politics) to a new era of learning. 2) To collect information and study the opinions of learners about e-Learning of the master's degree program (social leadership, business, and politics) of alumni and current students. 3) To study the factors affecting the development of master's degree program (social leadership, business, and politics) to a new era of learning.

From the objectives mentioned above, it is consistent with the benefits obtained from this research. 1. Make aware of the need for new teaching and learning styles of students in the master's degree program (social leadership, business, and politics). 2. Able to use the results of the studies or information obtained to guide the development of teaching models for students, meet the standards and meet the needs of students in the master's degree program (social leadership, business, and politics) 3. For the benefit of teaching and learning for current students and in the development of students to have higher performance. 4. For the benefit of planning the development of courses in marketing and recruiting new students of the master's degree program (social leadership, business, and politics).

Literature review

Online learning is done through the Internet in the form of modern technology using the Internet to build a high-quality, interactive education without the need to travel. It creates convenience and quick access anywhere, anytime as well as life-long education for the population (Education center, 2000). Studying through computer networks, the Internet or intranet is a self-learning process. Students will learn according to their abilities and interests. The contents of the lesson are provided in the form of texts, images, audios, videos and other kinds of multimedia sent to learners via Web Browsers, where students, teachers and classmates can contact and exchange ideas with each other just like in a normal classroom. Online learning relies on modern communication tools such as e-mail, web boards, and chat rooms (Roj, 2012). Learning through electronic technology is cheap. Students can learn very quickly, ideas can be distributed widely, and most importantly, education is rapidly developed in many new ways (Worawan, 2001).

In terms of the development of curriculum of the online Master of Arts in Management of Instructors program, College of Social Innovation Rangsit University, the teaching model has been developed continuously by developing the teaching and learning management for Master of Arts online teachers in accordance with the needs of learners who pursue the course and need to organize contents that help them acquire ideas, knowledge, understanding, and creativity. This conforms to the research of Supin Boonchuwong (2008) which studied opinions of students of the Faculty of Education, Suan Dusit Rajabhat University on continuous learning and its principles of teaching by



summarizing the content with mind maps, cognition and creativity, respectively.

In terms of social change factors that change the behavior of some learners, it was found out that teaching and learning may not meet the needs of the learners since the learning process has developed rapidly. Economic factors are considered quite important for the learners as well. Pursuing higher education has a relatively high cost, so if the economy is not good, learners will have to consider the priorities in life first, for example, further education is important or not when compared with food, clothing and medicine which are the basic needs. In addition, in terms of direct competitors and indirect competitors, there are many institutions offering online master's degree programs now or soon. However, there is the lack of marketing promotion and branding which can respond to the needs of learners, resulting into a decrease in the number of students taking the courses. As mentioned above, there are also socioeconomic factors related to the changing technology. This is in line with the research of applying technology to support teaching strategies in the process of learning for various transformations (Thomas, 2008).

In terms of discoveries in technology and electronic lessons of the Online Master of Arts Program, College of Social Innovation Rangsit University, as mentioned above, the problem of the declining number of students in the Master of Arts Online course marks the importance of problem identification and the origin of the causing factors. The number of students was reduced, so the researcher summarized the data from the research to summarize the other two

main reasons for taking online courses at present that are quite effective for learners into a concept namely "the patterns of students' learning, problems encountered". A discovered problem was that the sound of the video and the scene in the classroom were not clear enough. Another problem is that students were not interesting in learning because the video was taken in the classroom with many uncontrollable factors which may be unrelated to the content at that point, making students choose to leave or not study. This led to other consequences. If the problems in this section are not solved, there will be other problems, for instance, not having enough knowledge to speak with the teacher, inability to apply contents from learning to work, and inability to revisit lessons, etc.

It can be seen that these parts cannot be lacking because learning is not only dependent on technology or electronic lessons (Courseware), but it must be also taken into account that teaching and learning process of the Master of Arts Online course must be consistent in order for the learners or students to gain knowledge and understanding as much as possible. In the end, students shall be able to apply the knowledge in their daily life for the best outcomes. This is consistent with the research of Jonathan (2010) which stated that learned information can be used to benefit the learners' learning and their daily life. Considering the daily activities from awakening to bed, life today is surrounded by media such as newspapers, radio, television and computers. Information and communication technology (ICT), regardless of awareness and use of it, it is still extremely important in a rapidly changing society, where knowledge can be easily accessed by a variety of media.

In other words, easy access to information technology leads to good learning.

"Training of the teacher training course to enhance the ability in research-based learning management" by using the research and development methodology in 4 phases : Phase 1 , the basic information study for the development of the training course. Phase 2, Development of Draft Training Curriculum and Pilot Experiment. Phase 3 , Trial of Training Course. Phase 4 , Evaluation of Training Program Effectiveness and Curriculum Revision (Patphol, 2012).

The curriculum is a plan that includes the aim of study, the organization of the content Activities and mass experiences in each educational program to enable learners to develop in various fields According to the specified destination (Buasri, 1999)

Course refers to the mass of experience provided to the learner. It is planned in advance in the process set out in the

document to serve as a master class in teaching and learning according to the grade level. (Prasit Wuthiwech, 1999)

Methodology

The research methodology in this paper is a qualitative study which focuses on data collection towards interviews with the representative samples of the study population. (Kijpreeda Pure, 1997) Then, the assumptions established from the information collected are examined. (Pongsapitch, 2003) The research process includes the following sequence of steps: 1) selection of the population and samples from the scope mentioned above, 2) selection of qualitative research tools which are consistent with the target audience, 3) testing the quality of the tools (the quality test was measured based on the 5 dimensions, namely "Accuracy-Confidence Difficulty Level" research structure), 4) data collection, 5) data analysis and interpretation, and 6) summarization and discussion. (Trai Mongkolkul, 2012)

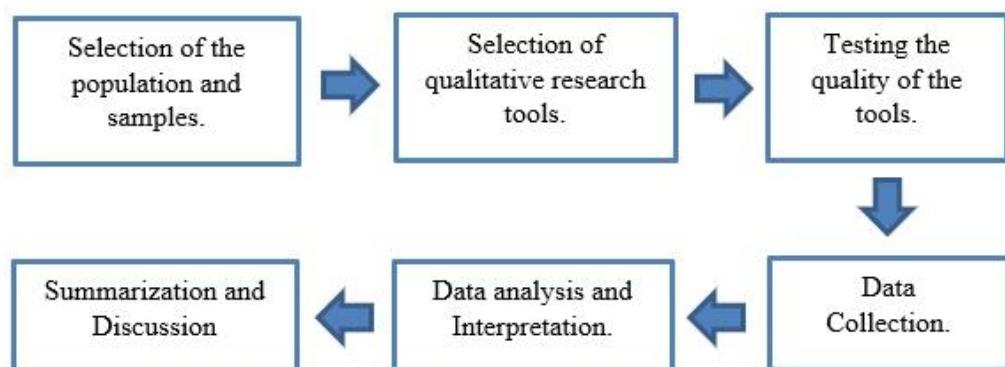


Figure 1 Research Process [1]

(From the picture is the process of research that is used to perform It is described in the topic of Methodology.)

The population used in this research were those involved in the learning process in the Master of Arts in Social, Political and Business Leadership (MA Online) program. The sample groups included 3 current students, 5 alumni, 2 lecturers of the program, and 2 experts in the field of online teaching and learning. The sample groups were obtained through direct coordination. They were interviewed to collect data.

The main research tools used in this research were in-depth interviews to collect information with details as follows. The interviews were divided into 2 types. First, the interviews with open-ended questions allowed interviewers to freely talk about their family skills and occupations. The researchers also used the questions to ask about the wellbeing, business participation in activities of professional occupation group members, and network for skills-enhancing occupations (such as researchers) Second, in-depth interviews or interviews with a specific focus were used for asking about the well-being of the family of the target groups. This includes questions about personal information such as their background, relationships with communities, groups and professional participation, and patterns, procedures and methods used for entering an occupation. To obtain this information, the researchers needed to establish a familiar relationship with the sample groups' family in order to gain trust from the samples and lead them to the compulsory questions (Institute for the development of non-formal education and informal education, 2017).

The process of obtaining information that fulfills the objectives of the research can be divided into data collected by

secondary and primary sources towards the use of interviews, surveys, observations, reporting-style questionnaires, and review of literature (Sathapitanon, 2003). Documentary study refers to the research, compilation and synthetization of academic works such as research results, articles, academic papers and texts related to the research subject or issue. They were used as the evidence that can be obtained to see the continuous accumulation of knowledge. This helps the researchers to define a research framework, research questions, research hypotheses, as well as guidelines for conducting research and discussing the results reasonably (Worakham, 2016). Observation refers to watching what happens in a conscious and organized manner to analyze or find the relationship of what happened to other things (Chanthawanich, 2006). Non-work interview discussions were predetermined and conducted in simple, friendly, and not-strict-to-steps conversation (Chanthawanit, 2000). Focus groups were conducted to gain opinions, beliefs, or attitudes towards products, services, or ideas. The questions were asked in different ways of interaction. It provided participants with the opportunity to speak and express their opinions freely between the research participants or the participants themselves. At the same time, the researchers took note of the conversation taken place (Taylor, 2002).

Analysis of data used in this research is component analysis, which is an analysis of the properties of each component of data to compare them to find the same and different common characteristics. After that, the meanings of those data are summarized. The analysis of components can only be done when there are two or

more data sets, but there should not be more than ten sets (Chantawanit, 1997).

Discussion of the result

The study on the development of online master's degree programs in social and political leadership for learning aims to explore the opinions of learners and their learning process which affected the development of Master of Arts Program in Social Sciences and Politics (Online Course), Rangsit University in the past and at the moment.

The results showed that Rangsit University adopted the College of Social Innovation Curriculum Academic Year 2003 for integrated learning in order to improve the quality of learners to acquire knowledge with emphasis on the development of basic integrated teaching for research practice, creation and dissemination of knowledge as well as guidelines for solving problems in economic, social, political and environmental areas to meet the needs of the public in a sustainable society.

The study found that Master of Arts online courses were courses taught at the master's level in the College of Social Innovation, Rangsit University. These courses aimed to develop students into leaders with science and interdisciplinary knowledge in the world of self-improvement towards Learning management system, online classroom, and real practice. This course was created to help develop the right vision and leadership in accordance with the Thai culture and the global standards towards missions, planning, welfare management, and leadership management by using an integrated learning process that focuses on learners

as a priority to forwarding feelings towards society.

The study found that the Master of Arts Program in Social and Political Studies (Online Course), Rangsit University had conducted research that had been continuously developed learning to teach better based on previously received information. Students needed learning contents that were easy to understand in a timely manner. This can be used practically in life. Also, students' teaching and learning tools were consistent with the course process of the program.

Analysis of Information about the Opinions of Learners on e-Learning and the Results of Master of Arts in Leadership Online Course Development: The study found that students who have graduated or are currently studying the Master of Arts in online courses believed that the online/distance learning system so-called Learning Management System (LMS) could help them to learn more conveniently without wasting time traveling to study in the actual classroom as they could learn anywhere, anytime (Samat, 2007). The teaching system also helped students to gain more knowledge from the original sources towards technology (Computer office Thaksin University, 2007). However, according to the interview results, there were still some problems in terms of usage of the videos, for example, sometimes it was not possible to open a video. Moreover, according to the experts in the e-learning system, the LMS system was still not fully used as a tool due to the bugs. However, the system has been improved from the original version. Nonetheless, the development of the LMS system must be consistent with electronic lessons as



well. Furthermore, the experts in the field of electronic lesson development suggested that compared to electronic lessons in the past, the developed Master of Arts in Leadership online systems were unique.

However, after observing the format of the lessons and the copyright specified since 2007, the first launch of the lessons and the flash system would not be available until 2020. Flash-based electronic techniques were available for

instructional videos, but some of them could not be played or opened when clicked in the LMS system. There were problems with video embedding and video filming in the system in terms of images, sounds, organizing views, inconsistency with the preparation of the electronic lessons, and duration. A standardized learning system will develop a function to completely solve any of the above problems. A standardized LMS system will be very popular in use. The details are as follows.



Figure 2 Global LMS Software usage ranking [2]

(The picture shows the worldwide LMS software rankings, which reflect the standards of the global learning system. Which if you want to solve problems and develop standards of the learning system to have a standard You may want to consider the most popular LMS software. With details in the topic "Discussion of the result")

Managerial implications

From the study, the researchers would like to present the following research suggestions. First, the researchers can notice different dimensions of the learning process, including the learning process in the dimension of the teacher towards the learners, the learning management process of the curriculum towards the learner, and the things that help to support the education and learning of students such as technology, medicine, teaching, electronic lessons that assist learning. With the foregoing, everyone should continually improve, not just because the learning process has been continuously evolving. This results into the development of this Master of Arts online course, which helps students to be up to date according to the world's

changing era and bring knowledge to national development organizations.

Future research direction

The development of Online Master's Degree Programs of Rangsit University towards online learning in the age of 5.0 may encounter the problem of technological change in many forms. Therefore, the researchers suggest that future studies should explore "blended teaching" and "all-time learning with technology" because today's learning is still uncertain due to the world's dynamic changes. This can be seen from the crisis that arose from the two topics that the researchers have proposed. If there is educational development, it will help human learning to keep pace with the world's situation.

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TRANSFORMATIONAL LEADERSHIP IN NON-GOVERNMENTAL INSTITUTION: A STUDY OF THE CHAMBER OF COMMERCE

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Abstract

The aim of this research was to examine the influence of transformational leadership and the followers' performance outcomes of non-governmental institution in the case of the Thai Chamber of Commerce using the moderating variables of political skill, innovative work behavior, and creative work environment. The question remains unanswered as to how the leaders of non-governmental agencies such as the Thai Chamber of Commerce perform in the challenging economic world. The study used empirical research in order to ascertain the important characteristics of transformational leadership in order to seek answers to the questions regarding the theoretical and practical implications of leadership and in order to develop leaders in the context of today's challenging business environment. The research methodology was exploratory sequential mixed methods. In a sample of 203 committee members from 62 provinces in a wide variety of industries, the research focused on the findings of the 4I characteristics of transformational leadership regarding followers' performance outcomes. Idealized influence, intellectual stimulation, and individual consideration were seen to be positively related to business network. Further idealized Influence and Intellectual Stimulation were positively related to social network ties, and idealized influence, intellectual stimulation, and individual consideration were positively related to efficacy. The findings regarding the moderating hypotheses were that political skill was positively related to intellectual and social network ties; innovative work behavior was positively related to intellectual and social network ties as well as positively related to intellectual and efficacy; and creative working environment was positively related to intellectual stimulation and social network ties. However, inspirational motivation was not positively related to followers'

performance outcomes. The theoretical and managerial implications for leadership theory and practices are discussed.

Keywords:

transformational leadership, business network, social network ties, efficacy, political skill, innovative work behavior, creative working environment.

Introduction

The Thai Chamber of Commerce is non-governmental institution who is the representative body of private sector of the country, and is the most extensive network in the country (The Joint Standing Committee on Commerce, Industry and Banking). The networks are combining of 76 provincial chambers of commerce, and members in Bangkok, representing more than 100,000 Thai business members of every size with business interests in every province of Thailand (Thai Chamber of Commerce, 2018).

Consideration of transformational leadership has been previously addressed in the research focused on role of leaders in determining leader effectiveness and performance, and focused on the group of medium to large organizations. The researches have not been empirically investigated on the non-governmental institution such as the Thai Chamber of Commerce.

The manner in which Thai Chamber of Commerce committees perceive their leadership style and behaviors greatly influences their psychological state and attitude toward their positions in the organizations. The roles of being Thai Chamber of Commerce Committees, especially in provincial chapter are to lead and inspire all chapter members to

actively make the chapter experiences even better, represent the chapters in the stage of public activities and regional board, also meet the vision/missions of organization which aims at building Thailand's potentials for international trade and investment to compete in global market in a sustainable manner (Thai Chamber of Commerce, 2018).

As such, it is important to study and identify, through empirical research, transformational leadership behaviors. The Thai Chamber of Commerce is the form of business community/network, so the leadership of the organization is applied to different leadership behaviors in work settings. This organization is not belonging to anyone, but it is belonging to everyone of the community. Thus, it would be challenge to investigate the transformational leadership behavior and explore the distinctive model of leadership of this organization.

The Thai Chamber of Commerce has developed transforming leaders who are the new generation of the organization named 'Young Entrepreneurs Chamber of Commerce' to be the change agents of organization to create the future of country (Thai Chamber of Commerce, 2018). A case study of Thai Chamber of Commerce would be implication for a kind of Thai Chamber of Commerce organization to develop transformation leaders. The research aims to examine the interaction relationship of transformation

leadership and followers' performance outcomes.

The findings of this study highlight the impact of transformational leadership on followers' performance outcome with moderating variables of political skills, innovative work behavior and creative working environment to driving business networks in the today's business challenging environment. The findings will be useful in assisting the executive committees to develop and implement leadership practices that are conducive to increasing the likelihood of committees staying in the organizations. The leaders will understand how to manage change in ways that strengthen the teams and stakeholders around them.

The scope of the study is framed on leader position of the organization. The example of leader positions are provincial chapter chairs of Thai Chamber of Commerce, provincial chapter committees, and the young entrepreneurs Chamber of Commerce Committees. They act leader roles in the organization.

The findings contribute as frame of reference in the body of knowledge for analyzing and identifying the interrelationships among business network, social network ties, efficacy and characteristics of transformational leadership.

Moreover, it is useful in assisting the organization to develop and implement leadership practices that are conducive to increasing the likelihood of committee members staying in the organizations. The leaders will understand how to manage change in ways that strengthen the teams and stakeholders around them.

The remainder of the paper is organized as follows. Firstly, a literature review on interrelationships among business network, social network ties, efficacy and characteristics of transformational leadership. This is followed by hypotheses development, Then, the research design, data collection and measurement validation procedures are discussed. Finally, the results and discussion are presented followed by the conclusion of the study and its implication and theoretical contribution.

Theoretical background and hypotheses

Transformational leadership and the followers' performance outcome

A core element of transformational leadership is the development of followers to enhance their capabilities and their capacity to lead (Bass & Riggio, 2006). Bass & Avolio (1995) defined 'transformational leadership' in the four I's characterizes:

- 1) "*Idealized Influence*, in which the leader communicates the values, purpose, and organizational mission in a way that motivate respect and pride"(Bass & Avolio, 1995). Idealized Influence leader involves being a positive role model that exemplifies high levels of moral/ethical and performance standards (Sosik & Jung, 2010).
- 2) "*Inspirational Motivation*, where the leader shows visible optimism and excitement about the future"(Bass & Avolio, 1995). Inspirational motivation leader involves the energy, initiative,

persistence, and vision that moves followers to achieve performance outcomes that exceed expectations and develops their leadership potential along the way(Sosik & Jung, 2010).

3) "*Intellectual Stimulation*, where a leader encourages examining new ways of solving problems"(Bass & Avolio, 1995). Intellectual Stimulation leader involves rational thinking, creativity, and freedom to fail(Sosik & Jung, 2010); these concepts allow followers to think for themselves in ways that challenge conventional wisdom and seek continuous process and people improvement(Sosik & Jung, 2010).

4) "*Individualized Consideration*, demonstrated by a focus on mentoring followers and attending to their development and needs"(Bass & Avolio, 1995). Individualized consideration leader involves dealing with followers as individuals and considering their needs, abilities, and aspirations to work together and further their development; Individualized consideration means being empathetic toward followers, giving value to them, paying special attention to them, and being developmentally focused by encouraging continuous improvement(Sosik & Jung, 2010).

Each of the components of transformational leadership can help build follower commitment in different way, for examples: 'Idealized influence' component is as a role model for followers to lead a group to commit on organizational values and goals; 'Inspirational motivation' component built emotional commitment to a mission or goal; 'Individualized Consideration' component enhanced commitment of followers at all levels by coaching,

mentoring and training (Bass & Riggio, 2006).

Leaders who are inspirational motivation and show commitment to organization, who challenge their followers to think and provide input, and who show genuine concern for their followers should have more satisfied followers (DeGroot, Kiker, & Cross, 2000; Dumdum, Lowe, & Avolio, 2002).

The Thai Chamber of Commerce is non-governmental agency which has more than 100,000 Thai business members of every business size with business interests in every province of Thailand (Thai Chamber of Commerce, 2018). The followers' performance outcomes of the Thai Chamber of Commerce are different from private and public organizations; the followers' performance outcomes of the Thai Chamber of Commerce are in a form of business network, social network, and efficacy which were investigated from interviews and literature reviews.

Coleman's (1988) viewed that the networks, which everyone is connected and no one can escape the notice of others, are the source of social capital. The two things for people in being network are access to information and facilitate trust and norms (Coleman, 1988). Mahmood, Zhu & Zajac (2011) studied 'Where can capabilities come from? Network ties and capability acquisition in business groups' and found that "the mix of group affiliates' ties in Taiwanese business groups related to the development of their internal capabilities"(Mahmood et al., 2011).

Business Network is defined as "a common type of multi-business organization in developing economies,

frequently dominating a substantial fraction of a country's productive assets and influencing their countries to upgrade their capabilities" (Kock & Guillen, 2001; Mahmood, Zhu, & Zajac, 2011). Networking is one of the most important requirement of leadership roles (Ibarra & Hunter, 2007).

Social Network Ties are individuals with relations building bridges between social groups where it is valuable to do for example exchange information, reward/punishment, trust, and economic/non-economic actions between people (Burt, 1997). Social networks affect to the flow and quality of information; second, social networks are important source of reward and punishment; and the third one is trust (Granovetter, 2005) Transformational leaders gain follower trust by maintaining their integrity and dedication, by being fair in their treatment of followers, and by demonstrating their faith in followers by empowering them (Bass & Riggio, 2006).

Efficacy is about level of confidence in the knowledge, skills, and abilities one holds associated with social roles (Bandura, 1997). Hannah, Avolio, Luthans, and Harms (2008) provided the explanation of leaders' (followers') efficacy that "Leaders' (followers') beliefs in their perceived capabilities to

organize the positive psychological capabilities, motivation, means, collective resources, and courses of action required to attain effective, sustainable performance across their various leadership roles, demands and contexts."(Hannah, Avolio, Luthans, & Harms, 2008).They suggest that "efficacy for thought is central to a leader's ability to generate effective solutions for leadership challenge and dilemmas"(Hannah et al., 2008). Also, in the new or unpredictable situations, the efficacy of leaders is applied how they can manage the situation (Hannah et al., 2008).

As a case of the 'Thai Chamber of Commerce', the group leaders or provincial chairman and committees of the Thai Chamber of Commerce interact among their groups. The relationships become personalized, and the friendships developed at the meetings, conference, and informal social gatherings. The relationship of friendship ties is important of this case because people are willing to share information and discuss ideas with people, whom they have established bonds of friendship and trust (Granovetter, 2005). The efficacy also is positively related to the transformational leadership. Thus, the hypotheses among independent variables and dependent variable are concluded as follows:

HYPOTHESES**STATEMENT****1. Transformational leadership and business network**

H1a Idealized Influence will be positively related to business network.
H1b Inspirational Motivation will be positively related to business network.
H1c Intellectual Stimulation will be positively related to business network.
H1d Individualized Consideration will be positively related to business network.

2. Transformational leadership and social network ties

H2a Idealized Influence will be positively related to social network ties.
H2b Inspirational Motivation will be positively related to social network ties.
H2c Intellectual Stimulation will be positively related to social network ties.
H2d Individualized Consideration will be positively related to social network ties.

3. Transformational leadership and efficacy

H3a Idealized Influence will be positively related to efficacy.
H3b Inspirational Motivation will be positively related to efficacy.
H3c Intellectual Stimulation will be positively related to efficacy.
H3d Individualized Consideration will be positively related to efficacy.

Roles of moderating variables in the relationship of transformational leadership and the followers' performance outcome

The critical of transformational organization is how leader influence on individual followers. However, it is not sufficient to explain how leaders build exceptional teams and transform the organization. The theories would be strengthened by a better explanation of how leaders enhance mutual trust and collaboration, cooperative self-efficacy, and team learning (Yukl, 2002). Also, there is insufficient description of the leader's external role, for example, representing a team or organization and helping it to secure adequate resources, members, and political support (Yukl, 2002). In the role of Thai Chamber of Commerce as a representing or private sector, the leaders' role would be the represent of groups, committees,

chapters, and organization; the one important skill is '*political skill*'.

“Political actions include creating a coalition to approve change, forming teams to guide it, selecting the right people to fill key positions, making symbolic changes that affect the work, making structural changes to institutionalize change, and monitoring the progress of change to detect problems that require attention” (Yukl, 2002). Political skill was developed by four aspects: social astuteness, interpersonal influence, networking ability, and apparent sincerity (Ammeter, Douglas, Gardner, Hochwarter & Ferris, 2002).

The leadership researchers have been verified the relationship between political skills and leadership; the leader political skill significantly predicted leader effectiveness ratings after controlling for leader demographic and social skill variables (Douglas, 2004). Also, which test 408 leaders

(headmasters) and 1,429 followers (teachers) of state schools in the western part of Germany showed that political skill with the behavior of transformational and transactional leader

impacts to leadership effectiveness (Ewen, 2013). The hypotheses on political skill moderating on transformational leadership and three dependent variables are following:

HYPOTHESES

4. Political skill moderating on transformational leadership and business network

H4a Political skill positively moderates the relationship of Idealized Influence and Business Network.

H4b Political skill positively moderates the relationship of Inspirational Motivation and Business Network.

H4c Political skill positively moderates the relationship of Intellectual Stimulation and Business Network.

H4d Political skill positively moderates the relationship of Individualized Consideration and Business Network.

5. Political skill moderating on transformational leadership and social network ties

H5a Political skill positively moderates the relationship of Idealized Influence and Social Network Ties.

H5b Political skill positively moderates the relationship of Inspirational Motivation and Social Network Ties.

H5c Political skill positively moderates the relationship of Intellectual Stimulation and Social Network Ties.

H5d Political skill positively moderates the relationship of Individualized Consideration and Social Network Ties.

6. Political skill moderating on transformational leadership and efficacy

H6a Political skill positively moderates the relationship of Idealized Influence and efficacy.

H6b Political skill positively moderates the relationship of Inspirational Motivation and efficacy.

H6c Political skill positively moderates the relationship of Intellectual Stimulation and efficacy.

H6d Political skill positively moderates the relationship of Individualized Consideration and efficacy.

Innovative work behavior is defined as “an individual’s behavior that aims to achieve the initiation and intentional introduction (within a work role, group or organization) of new and useful ideas, processes, products or procedures”(Farr & Ford, 1990). Most of literatures describe the ‘innovation work behavior’ as the opportunities to explore new idea, and generate idea, and then implement

idea (Drucker, 1985). Kanter (1998) outlined “three stages relevant to innovative work behavior as idea generation, coalition building and implementation”(Kanter, 1988).

“Transformational leaders are proposed to stimulate follower innovative behavior through expressing an inspiring vision, stimulating followers to question, and allowing individual development and

growth"(Bass & Avolio, 1990). As previous evidence, the relationship of transformational leadership is positively influence on the followers' innovative work behavior (Bass, 1990; Hater &

Bass, 1988). The hypotheses on innovative work behavior moderating on transformational leadership and three dependent variables are following:

HYPOTHESES

STATEMENT

7. Innovative work behavior moderating on transformational leadership and business network

H7a Innovative work behavior positively moderates the relationship of Idealized Influence and Business Network.

H7b Innovative work behavior positively moderates the relationship of Inspirational Motivation and Business Network.

H7c Innovative work behavior positively moderates the relationship of Intellectual Stimulation and Business Network.

H7d Innovative work behavior positively moderates the relationship of Individualized Consideration and Business Network.

8. Innovative work behavior moderating on transformational leadership and social network ties

H8a Innovative work behavior positively moderates the relationship of Idealized Influence and Social Network Ties.

H8b Innovative work behavior positively moderates the relationship of Inspirational Motivation and Social Network Ties.

H8c Innovative work behavior positively moderates the relationship of Intellectual Stimulation and Social Network Ties.

H8d Innovative work behavior positively moderates the relationship of Individualized Consideration and Social Network Ties.

9. Innovative work behavior moderating on transformational leadership and efficacy

H9a Innovative work behavior positively moderates the relationship of Idealized Influence and efficacy.

H9b Innovative work behavior positively moderates the relationship of Inspirational Motivation and efficacy.

H9c Innovative work behavior positively moderates the relationship of Intellectual Stimulation and efficacy.

H9d Innovative work behavior positively moderates the relationship of Individualized Consideration and efficacy.

For an organizational culture to become more transformational, top management executives must be the change agent by sharing the vision (Bass, 1999). Stites-Doe, Pillai, and Meindl (1994) examined the occurrence of transformational leadership and the way the organizational culture was adopted by employee. The behavior of top level become symbols of

the organization's new culture. (Stites-Doe et al., 1994).

Amabile, Conti, Coon, Lazenby, and Herron (1996) outlined the influence on work environment perceptions and the influence of those perceptions on the creativity of their work that "the work environment perceptions can influence

the level of creative behavior displayed in the generation and early development of new products and processes, and creative ideas from individuals and teams within organizations sow the seeds of successful innovation"(Amabile et al., 1996).

"Transformational leadership behaviors closely match the determinants of innovation and creativity at workplace,

some of which are vision, support for innovation, autonomy, encourage, recognition, and challenge" (Elkins & Keller, 2003). Transformational leadership was positively related to the follower creativity (Shin & Zhou, 2003). The hypotheses on creative work environment moderating on transformational leadership and three dependent variables are following:

HYPOTHESES

STATEMENT

10. Creative working environment moderating on transformational leadership and business network

H10a	Creative working environment positively moderates the relationship of Idealized Influence and Business Network.
H10b	Creative working environment positively moderates the relationship of Inspirational Motivation and Business Network.
H10c	Creative working environment positively moderates the relationship of Intellectual Stimulation and Business Network.
H10d	Creative working environment positively moderates the relationship of Individualized Consideration and Business Network.

11. Creative working environment moderating on transformational leadership and social network ties

H11a	Creative working environment positively moderates the relationship of Idealized Influence and Social Network Ties.
H11b	Creative working environment positively moderates the relationship of Inspirational Motivation and Social Network Ties.
H11c	Creative working environment positively moderates the relationship of Intellectual Stimulation and Social Network Ties.
H11d	Creative working environment positively moderates the relationship of Individualized Consideration and Social Network Ties.

12. Creative working environment on transformational leadership and efficacy

H12a	Creative working environment positively moderates the relationship of Idealized Influence and efficacy.
H12b	Creative working environment positively moderates the relationship of Inspirational Motivation and efficacy.
H12c	Creative working environment positively moderates the relationship of Intellectual Stimulation and efficacy.
H12d	Creative working environment positively moderates the relationship of Individualized Consideration and efficacy.

Regarding to literature review, the research framework of four transformational leadership characteristics and followers' performance and three moderating

variables (political skill, innovative work behavior, and creative working environment) and 48 hypotheses are shown in figure 1.

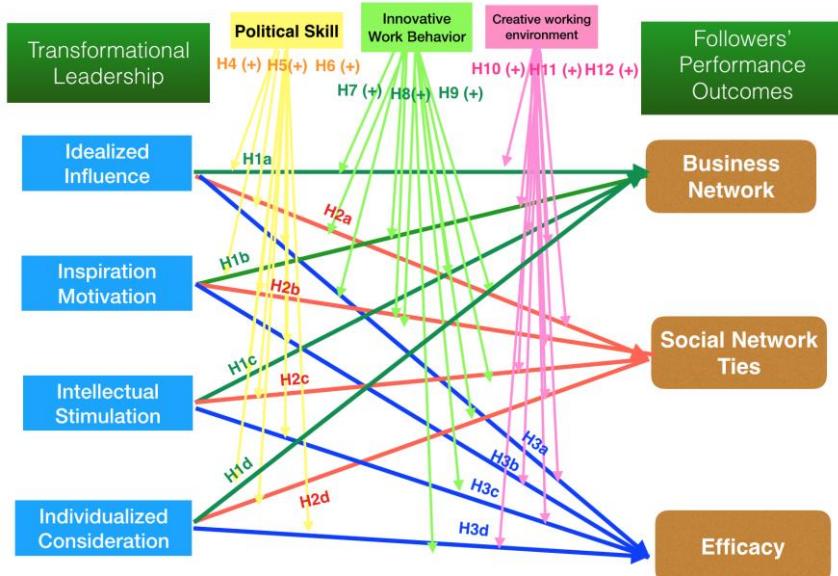


Figure 1 The theoretical Framework of the study

Research methodology

Sample and procedures

The unit of analysis for this research comprised of 76 Thai Chamber of Commerce Chapters and Thai Chamber of Commerce in Bangkok. According to the data of Thai Chamber of Commerce, the committee members have roughly 2,000 members. The sample size 203 samples. The respondents are composed of YEC Committee Member of Provincial Chamber of Commerce (40%), Committee Member of Board of Trade/ Thai Chamber of Commerce (34.5%); YEC President of Provincial

Chamber of Commerce (12.3%), Committee Member of Provincial Chamber of Commerce (7.9%), Chairperson of Provincial Chamber of Commerce (3%), and Committee member of Sub-Committee of the Board of Trade/ Thai Chamber of Commerce (2.5%). All respondents completing the questionnaires were CEO/ Presidents (37.4%), Chairpersons (21.7%), Vice Presidents (12.8%), Directors (10.3%), Board members (7.6%), and Managers (7.4%) accordingly.

The study was implemented mixed method. The qualitative part was exploratory phase to generate the

hypotheses, and verified later on in quantitative section of the study. After that the qualitative was used again for in-depth explanations. It was called “Exploratory Sequential Mixed Method”(Creswell & Plano Clark, 2011). In part of qualitative study, the research instrument was ‘Interview’. The interviews took one hour to get individual opinions and describe the deeper and more detailed facets of the situations in their roles and responsibilities leading their networks and results of followers’ performance. These respondents are committees who have roles for driving and developing the organization.

Measurement

The data was conducted in the form of self- administered questionnaire and interview. The quantitative method is involved in statistical and mathematical analysis is implemented by using SPSS program.

The questionnaire is developed based on the multifactor leadership questionnaire (MLQ) and apply some wordings to the contexts of the study. Self-administered questionnaires were emailed to the target population. The format of questionnaire is formed on the online version (google form) , which makes respondents convenient to response the answers. Also, the questionnaires were carried out at the regional and provincial meetings, conferences, and formal and informal gatherings of the Thai Chamber of Commerce. The research instrument is questionnaire, consisting of two parts: 1.

General information, and 2. Transformational Leadership, according to Bass and Avolio’s concept (Bass & Avolio, 1995).

From SPSS analysis, the internal reliability tests showed satisfactory Cronbach alpha (or coefficient alpha) of the dependent variables (followers’ performance outcomes) obtained highest alpha level ($\alpha = 0.952$). The Cronbach alpha level of independent variables (transformational leadership) was 0.929 ($\alpha = 0.929$). The Cronbach alpha scores of other variables were higher than 0.8; it meant multiple- question Likert scale surveys were in the level of good to excellent internal consistency and reliable.

In part of quantitative research method, the statistic model was Multiple Linear Regression Analyses to validate the hypotheses.

Controls

Besides of main dependent and interdependent variables, the analysis put 4 control variables. Organizational Tenure (Years of Experience in the Thai Chamber of Commerce organization) , Years of Working Experience, Age, and Education level are included as control variables in the analysis. Previous research has shown these variables to be related to the performance outcomes variables (e. g. Ahearn, Poertner, & Ferris, 2004; Morrison & Phelps, 1999). Moreover, in order to find out the effects of 4 variables on dependent variables, the control variables may have influence on performance outcomes variables.

Analysis and results

Prior to testing the transformational leadership and followers' performance outcomes, the qualitative analysis was conducted for building the conceptual framework. The approach was interview with key persons who are in the process of transforming organization. It was 8 in-depth interviews to get individual opinions and describe the deeper and more detailed facets of the situations

in their roles and responsibilities leading their networks and results of followers' performance. The content analysis of the interviews was done to look for key words to investigate the variables of dependent, independent and moderating variables. Then, it was presented 12 topics 48 hypotheses as mentioned in part 2 and the conceptual framework shown in Figure2.

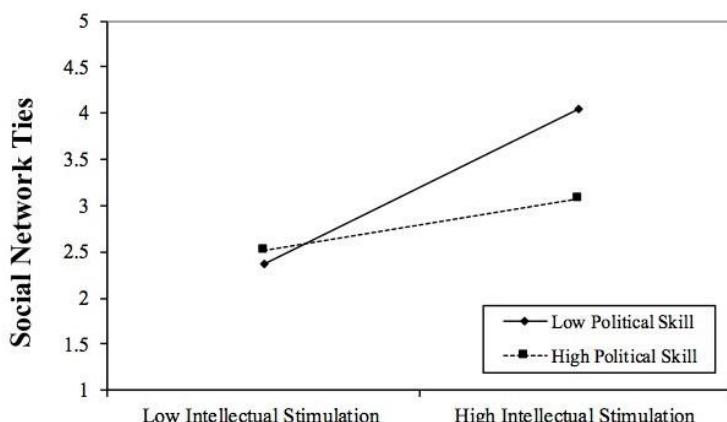


Figure 2 Moderating effect of political skill on intellectual stimulation and social network ties

The quantitative analysis was conducted to test the hypotheses. Table 1 reports the results of an analysis of the relationships among the study variables. As indicated in the correlation analysis, all variables are significantly related to one another, supporting what has been found in previous researches (Bernard & Riggio,

2006; Granovetter, 2005; Hoyt, Murphy, Halverson & Watson, 2003; Mahmood et al., 2001). The means, standard deviations, and bivariate correlations among studies variables were reported in Table 1. The results of bivariate correlation were positive correlated between each other, and variables moved in the same direction.

Table 1 Means, standard deviations and bivariate correlation among studies variables

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1.Idealized Influence	3.52	0.44	-									
2.Inspiration Motivation	3.23	0.53	0.629*	-								
3.Intellectual Stimulation	3.56	0.48	0.623*	0.569*	-							
4.Individualized Consideration	3.13	0.49	0.499*	0.503*	0.510*	-						
5.Political Skill	3.13	0.57	0.525*	0.431*	0.467*	0.551*	-					
6.Innovative Work Behavior	3.44	0.61	0.641*	0.440*	0.685*	0.561*	0.411*	-				
7.Creative Working Environment	3.19	0.66	0.559*	0.489*	0.632*	0.431*	0.380*	0.701*	-			
8.Business Network	3.42	0.67	0.529*	0.347*	0.496*	0.417*	0.255*	0.648*	0.566*	-		
9.Social Network Ties	3.59	0.60	0.562*	0.382*	0.660*	0.431*	0.307*	0.703*	0.585*	0.729**	-	
10.Efficacy	3.45	0.59	0.578*	0.489*	0.549*	0.548*	0.492*	0.659*	0.572*	0.617**	0.706**	-

Note: $N = 203$ variables, * $p < 0.05$ ** $p < 0.01$

The hypotheses were tested using multiple regression to measure the relationships between independent and dependent variables. To ensure that statistical analyses are valid, each hypothesis was firstly validated the effect of multicollinearity as well as checked the residual plots for goodness- of- fit. Also, the hypotheses were verified the fit by checking the residual plots by analyzing p-values with 95% confidence interval. Then, the significance tests of each variables were interpreted by p-value and coefficient in regression analysis to explain the relationships. In this study, the null hypothesis was rejected, p-value was much less than 0.05 significance level.

The regression results are presented in table 2. The control variables were entered. The organizational tenure was positively related only to efficacy ($\beta = 0.164$, $p = 0.029$), but not related to business network and social network ties. The years of working experience was

positively related to business network ($\beta = -0.214$, $p = 0.023$) and social network ties ($\beta = -0.213$, $p = 0.010$).

To summarize, the results of main variables were presented that the transformational leadership variables which were significant correlation with the business network are Idealized Influence ($\beta = 0.356$, $p = 0.000$), Intellectual Stimulation ($\beta = 0.241$, $p = 0.002$), and Individualized consideration ($\beta = 0.173$, $p = 0.015$). The variables which were significant correlation with social network ties were Idealized Influence ($\beta = 0.301$, $p = 0.000$) and Intellectual Stimulation ($\beta = 0.500$, $p = 0.000$). The variables which significant correlation with efficacy were Idealized Influence ($\beta = 0.302$, $p = 0.000$), Intellectual Stimulation ($\beta = 0.193$, $p = 0.008$) and Individualized Consideration ($\beta = 0.284$, $p = 0.000$). Therefore, H1a, H1c, H1d, H2a, H2c, H3a, H3c, and H3d were accepted.

The results of interaction effects were summarized that Political Skill positively moderated the relationship of Intellectual Stimulation and Social Network Ties ($\beta = -0.197$, $p=0.021$). Innovative work behavior positively moderated the relationship of Intellectual Stimulation and Social Network Ties ($\beta = -0.257$, $p=0.001$). Innovative Work Behavior positively moderated the relationship of Inspirational Motivation and Efficacy ($\beta = 0.154$, $p=0.029$) and Innovative Work Behavior positively moderated the relationship of Intellectual Stimulation and Efficacy ($\beta = -0.281$, $p=0.000$).

Creative Working Environment positively moderated the relationship of Inspirational Motivation and Business Network ($\beta = 0.181$, $p=0.008$). Creative Working Environment positively moderated the relationship of Inspirational Motivation and Social Network Ties ($\beta = 0.202$, $p=0.000$) and Creative Working Environment positively moderated the relationship of Intellectual Stimulation and Social Network Ties ($\beta = -0.275$, $p=0.001$). Thus, H5c, H8c, H9b, H9c, H10b, H11b and H11c were accepted.

Table 2 Summary of multiple regression analyses ($N=203$)

Variables	Business Network	Social Network Ties	Efficacy
1. Control Variables			
Organizational Tenure (measured in years)	0.094	0.121	0.164*
Years of Working Experience	-0.214*	-0.213*	-0.084
Age	0.156	-0.028	-0.111
Education Level	0.025	0.014	0.007
2. Main Variables			
Idealized Influence	0.357*	0.301*	0.302*
Inspirational Motivation	-0.108	-0.112	-0.067
Intellectual Stimulation	0.241*	0.500*	0.193*
Individualized Consideration	0.173*	0.118	0.284*
3. Interaction			
Political Skill \times Idealized Influence	0.007	0.067	0.084
Political Skill \times Inspirational Motivation	0.024	-0.019	-0.082
Political Skill \times Intellectual Stimulation	-0.071	-0.197*	-0.090
Political Skill \times Individualized Consideration	-0.122	-0.016	-0.016
Innovative Work Behavior \times Idealized Influence	0.012	-0.009	-0.063
Innovative Work Behavior \times Inspirational Motivation	0.140	0.102	0.154*
Innovative Work Behavior \times Intellectual Stimulation	-0.164	-0.257*	-0.281*
Innovative Work Behavior \times Individualized Consideration	-0.142	-0.051	-0.074
Creative Working Environment \times Idealized Influence	-0.120	-0.070	0.016
Creative Working Environment \times Inspirational Motivation	0.181*	0.202*	0.088
Creative Working Environment \times Intellectual Stimulation	-0.144	-0.275*	-0.161
Creative Working Environment \times Individualized Consideration	-0.063	-0.093	-0.127

*Note: The coefficients are standardized B weights. * $p<0.05$*

To determine whether the forms of the interactions matched those hypotheses, the simple slope tests (Dawson, 2014) are used to examine the strength of relationships among variables. The theories have been supported on H5c, H8c, H9b, H9c, H10b, H11b and H11c. In support of H5c, the graph of the significant of the two-way relationship on intellectual stimulation and social network ties ($\beta = 0.627$, $p = 0.000$) and interaction moderated by political skill ($\beta = -0.197$, $p = 0.021$) The plot demonstrated that political skill is high, the social network ties is quite the same level (Figure 3).

the social network ties is getting better and when political skill is low, it is needed high intellectual stimulation to have high social network ties (Figure1). The H8c was accepted. In support of H8c, a plot of the significance of the two-way interaction on intellectual stimulation and social network ties relationship ($\beta = 0.627$, $p = 0.000$) moderated by innovative work behavior ($\beta = -0.257$, $p = 0.001$). The plot demonstrated that innovative work behavior is high, the social network ties is quite the same level (Figure 3).

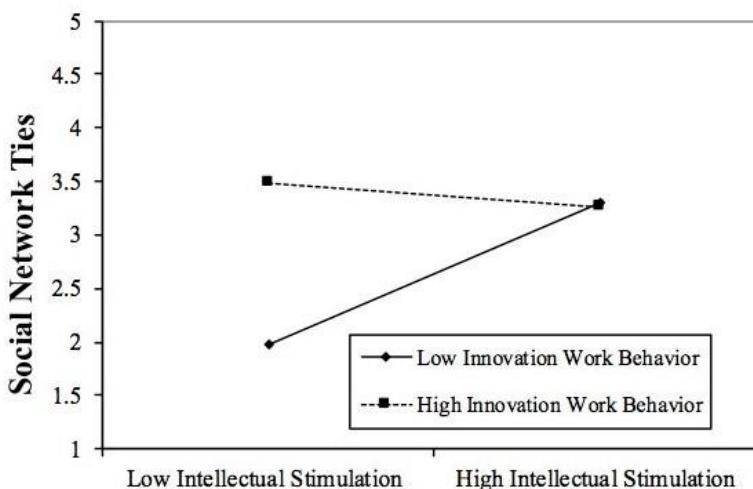


Figure 3 Moderating effect of innovative work behavior on intellectual stimulation and social network ties

It means intellectual stimulation have impact with social network ties no matter level of innovative work behavior high or low. However, once intellectual stimulation is low, it is needed to have high innovative work behavior to have strong social network ties.

The H9b and H9c were accepted. However, the H9b main relationship of inspirational motivation and efficacy was not significant, so only H9c was selected to plot the significance of the two-way interaction. The Figure 4 on intellectual stimulation and efficacy relationship ($\beta = 0.238$, $p = 0.008$) moderated by

innovative work behavior ($\beta = -0.281$, $p = 0.000$). The plot demonstrated It means intellectual stimulation have impact with social network ties no matter level of

efficacy high or low. However, once intellectual stimulation is low, it is needed to have high efficacy to have strong social network ties (Figure 4).

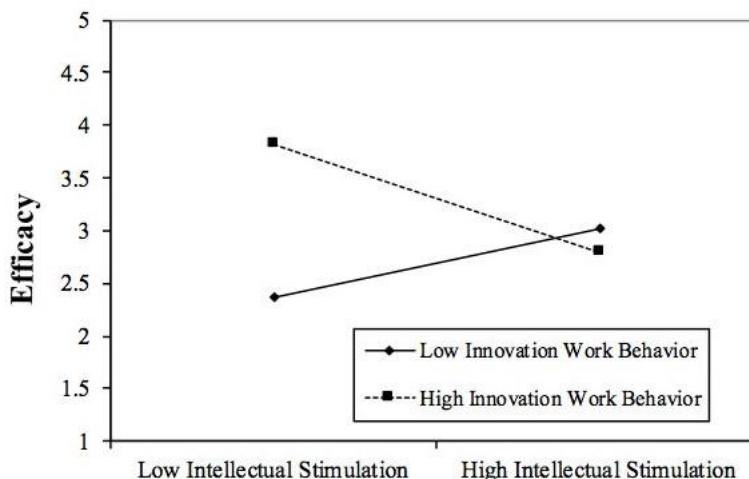


Figure 4 Moderating effect of innovative work behavior on intellectual stimulation and efficacy

The H10b, H11b and H11c were accepted. However, the main relationship of H10b and H11b were not significant, so only H11c was selected to plot the significance of the two-way interaction. The Figure 4 on intellectual stimulation and social network ties ($\beta = 0.627$, $p = 0.000$) relationship moderated by creative working environment ($\beta = -$

0.275, $p = 0.001$). The plot demonstrates that intellectual stimulation has impact with social network ties no matter level of creative working environment high or low. However, once intellectual stimulation is low, it is needed to have high creative working environment to have strong social network ties (Figure 5).

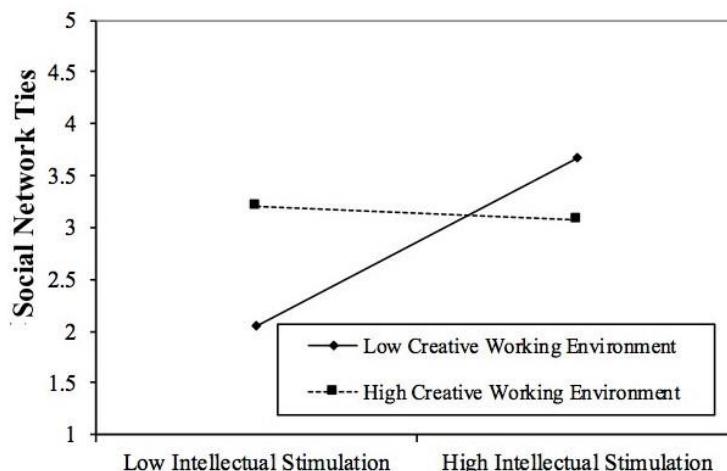


Figure 5 Moderating effect of creative working environment on intellectual stimulation and social network ties

Discussion and conclusion

The purpose of this research was to advance understanding of the relationship between transformational leadership and followers' performance outcomes of non-government organization in a form of business community/network. The Thai Chamber of Commerce was selected as a sample case of studying relationship of transformational leadership on followers' performance outcome (efficacy, business network, and social network ties) with moderating variables of political skills, innovative work behavior and creative working environment to drive organization in the today's business environment. The study integrated qualitative and quantitative methods. The qualitative part was exploratory phase to generate the hypotheses, then verified

hypotheses in quantitative section. After quantitative part, the researcher interviewed the key informants again to explore in-depth for possible explanations.

Theoretical implications

This study contributes to the leadership and organizational research stream by explicating a broader set of transformational leadership characteristics through the followers' performance outcomes of the Thai Chamber of Commerce with moderating of political skill, innovative work behavior, and creative working environment.

As hypothesized the 4 I's characteristics of transformational leadership positively related to business network, from the Table 2 the transformational leadership factors taken to enhance the follower's

expectation on business network are idealized influence ($\beta=0.357$), intellectual stimulation ($\beta =0.241$), and individualized consideration ($\beta =0.173$) accordingly. According to Krishnan (2015), the transformational leadership is vital not only enhance organization efficiency but also to discover new business opportunities (Krishnan, 2015).

As hypothesized the four I's characteristics of transformational leadership was positively related to social network ties, the study found that the intellectual stimulation was the first rank ($\beta =0.500$), and idealized consideration was the second rank ($\beta =0.301$) (Table 2). However, the inspirational motivation and Individualized Consideration were not positively related to social network ties. Northouse (2014) described the one of the main characteristics of 'transformational leadership' is 'intellectual stimulation' and provides direct link to creativity (Northouse, 2004; Puccio, Murdock & Mance, 2007). The qualitative findings supported that Thai Chamber of Commerce provides the creativity activities to members such as YEC Pitching fostering innovation in organization.

As hypothesized the four I's characteristics of transformational leadership positively related to efficacy, the study found that the transformational leadership factors taken to enhance the follower's expectation on efficacy, were idealized influence ($\beta=0.302$), individualized consideration ($\beta=0.284$) and intellectual stimulation ($\beta=0.193$) accordingly. From hypothesis results, the inspirational motivation was only one

characteristics of transformational leader not relating to three followers' performance outcomes.

The research of Hayati, Charkahabi, & Naami (2014) examined relationship of transformational leadership and work engagement in governmental hospitals nurses showed that the idealized influence characteristic was the first rank of transformational leader impact on work engagement and inspirational motivation was the second impact. The results were explained that idealized influence would lead a positive vision by setting high standards, challenges the employees then leading by establishing inspirational motivation for attaining success (Hayati, Charkahabi, & Naami, 2014). Another research of Trottier, Van Wart, & Wang (2008) on 'Examining the Nature and Significance of Leadership in Government Organizations' showed that "three leadership factors enhancing follower satisfaction were individualized consideration, idealized influence, and inspirational motivation accordingly" (Trottier, Van Wart, & Wang, 2008). The results were described that "first leaders must be trustworthy, followed by being considerate of followers individual needs and talents, and finally being able to instill motivational enthusiasm and sense of empowerment" (Trottier, Van Wart, & Wang, 2008).

However, the Thai Chamber of Commerce is network of entrepreneurs, not government. The leaders of entrepreneurs' network have different characteristic from government. The qualitative findings gave more explanation that the nature of the Thai

Chamber of Commerce was friends with common interests. The roles of being leaders and followers in the organization were set for managing roles & responsibilities, assigning tasks, and working on the missions. Every committee member was values to organization.

The H5c was intellectual stimulation and social network ties relationship moderated by political skill ($B = -0.197$, $p = 0.021$). Specifically, the result explained leader with political skill will lead to strong social network ties. In case leader having low political skill, they need to have high intellectual stimulation (Figure 2). According to leadership researches verified the relationship between political skills and leadership, Ammeter, Douglas, Gardner, Hochwarter, and Ferris (2002) highlighted both the moderating and mediating effects of political skill on leader and follower outcome(Ammeter et al., 2002). Another research on leadership, which test 408 leaders (headmasters) and 1,429 followers (teachers) of state schools in the western part of Germany showed that “political skill with the behavior of transformational and transactional leader impacted to leadership effectiveness” (Ewen, Wihler, Bickle, Oerder, Ellen, Douglas & Ferris, 2013). Fang, Chi, Chen and Baron (2014) examined how 28 entrepreneurs in 10 different industries that “the role of political skill had influence entrepreneurial processes within social networks, specifically with resource-rich networks that provide access to social capital” (Fang, Chi, Chen

and Baron, 2014). The H8c was intellectual stimulation and social network ties relationship moderated by innovative work behavior ($B = -0.257$, $p = 0.001$). It showed that either of being intellectual stimulation or being innovative behavior leader will lead the team to cohesive social network ties (Figure 3). The ‘innovation work behavior’ as the opportunities to explore new idea, and generate idea, and then implement idea (Ewen et al., 2013). According to the researches verified the relationship of innovative work behavior and social network ties, the result from a sample in high-tech firm showed that “leader- member exchange fully mediated the positive relationship between out-group weak ties and innovative behavior” (Baer, 2010; Perry-Smith, 2006), and another research showed that “social network weak ties with people outside one’s own group are crucial for innovation” (Baer, 2010; Perry-Smith, 2006).

In the qualitative result, Thai Chamber of Commerce was the place of sharing knowledge and experience with people outside their own organizations in order to develop to innovation and social network ties.

The H9c was intellectual stimulation and efficacy relationship moderated by innovative work behavior ($B = -0.281$, $p = 0.000$). According to Figure 4, the simple slope was depicted that if leader has low intellectual stimulation, innovative work behavior is needed to develop high efficacy (Figure 3). The finding of collecting 267 employees in Italy by Ng & Lucianetti (2016) showed

that employees who were increasingly confident in their ability to be creative, persuade others and successfully handle change demonstrate increasing amounts of innovative behavior. Another research by Tierney & Farmer (2002) showed that increase in creative self-efficacy were certainly a core foundation of increases in idea generation, which was possibly a prerequisite for any other type of innovative behavior to occur (Tierney & Farmer, 2002). The qualitative findings also mentioned to 'their conjoint capabilities to organize and execute the courses of action' (Bandura, 1997) such as YEC Pitching, Hackathon Workshops, Local Startup Accelerator which produce given the levels of attainment.

As hypothesized creative working environment positively moderating the relationship of transformational leaders and followers' performance outcomes, the finding of creative working environment moderating on transformational leaders' characteristics towards followers' performance outcomes (business network, social network ties, and efficacy) was only H11c significantly. The H11c was intellectual stimulation and social network ties relationship moderated by creative working environment ($B=0.275$, $p=0.001$). If leader created comfortable environment in the meeting, motivate teams to create new projects, and practice on solving problems creatively, the social network ties would better develop in the organization (Figure 5).

According to leadership researches, Elkins & Keller (2003) showed that

"Transformational leadership behaviors closely matched the determinants of innovation and creativity at workplace, some of which are vision, support for innovation, autonomy, encourage, recognition, and challenge" (Elkins & Keller, 2003). Most creative work could be occurred when applicable creativity characteristics, working on challenging and complex jobs as well as with supportive leaders, and the employees were more likely to brainstorm within their team and sought for new approaches to work on (Elkins & Keller, 2003). Moreover, the finding of senior managers within the UK advertising industry the creative work environment fostered effectively utilize explicit knowledge. Hargadon and Sutton (1997) also found that "a firm at the operation of several industries was able to come up with new business concepts by taking the advantage of access to knowledge derived from various industries" (Hargadon & Sutton, 1997). Mahmood (2011) also found that "the mix group affiliates' ties in Taiwanese business groups related to the development of their internal capabilities" (Mahmood et.al, 2011)

The qualitative result also supported those intellectual stimulation leaders encouraging followers to brainstorming, and creative work environment, which supported them on sharing knowledge in the group to seek for solution.

Practical implications

According to the results, there are several practical implications. *First*, the findings suggest that organizational tenure was

positively related to efficacy, but not related to business network and social network ties. Hence, the organization provides the values of business network, social network ties, and efficacy for newcomers. For experienced members, the organization provides the missions/tasks for them. They feel adding on self-efficacy.

Second, the results showed that the characteristics of the Thai Chamber of Commerce transformational leaders was described as “first leaders must be trustworthy, concerning on collective mission and considering the moral and ethical consequences of decisions, second enhancing creativity and innovative thinking in the group, and finally understanding members’ needs and don’t forget to celebrate team efforts”. Hence, the organization can help leaders develop transformational leadership skills for building better performance outcomes, possibly increasing empowerment of their teams. Also, the leadership development trainings for Provincial Chairperson, YEC President, and Committee members can apply these characteristics/skills in the program to develop great leaders for organization.

Third, the findings suggest that political skill and innovative work behavior moderating to the relationship of intellectual stimulation and social network ties. Hence, leaders should let team members brainstorm on critical issues and let them balancing and managing the connections in each form because of these are matched to their aspiration. The stronger social network

ties will be occurred after that. Also, they valued on social network ties and efficacy through the challenge tasks. Moreover, the results of creative working environment moderating to the relationship of inspiration motivation and business network and social network ties. From qualitative results, they are also interested in practicing on being inspirational motivation leaders.

The study’s result and associated implication should be viewed in light of developing organizational human development. The Thai Chamber of Commerce are case study of non-government agency which have many leaders and followers in the organization. Everyone belongs to several roles and responsibilities. Leadership of the executive committees are significant for organization. The findings are useful in assisting the executive committees to develop and implement leadership practices that are conducive to the likelihood of committees continuing in the organization.

From a methodological perspective, a major strength of this study is data from potential transformational leaders who have positions for driving the organization. 60 % of data are young entrepreneurs who are in charge of transforming organization. The data collection is also from multiple sources collecting six months period which reduce potential biases that may result from common method variances.

However, this study also suffered from several limitations. One weakness of our study is time limitation and sample sizes.



The research was addressed to use multilevel analysis to study the results of group-individual level. It may show interesting results for future research. It might be related to cultural organization. However, the results showed that there were not cluster effect ($ICC < 0.10$). Another limitation of this research is sample of the study. The respondents were drawn from Thai Chamber of Commerce. Most of respondents are potential leaders of the provincial Thai Chamber of Commerce Chapters. The results of this research were generalizable only to the population of the organization. However, one of objectives of developing this research was seeking the different leadership behaviors of a kind of organizations like Thai Chamber of Commerce. It might not be generalizable to other organization. It needs to further study in the future research.

Building from results of the study, there are some major priorities proposed for the future research. First, in the future it would be benefit to replicate this study and repeat this model testing approach with using a new sample. Second, the future research should add more samples to test the multilevel analysis to see the different of individual and group level. The results of each group may be parallel and non-parallel with individual results. It may show interesting results for theory and practical implications. Third, more variables could be incorporated into the model. For example, to what extent do transformational leadership with transactional leadership on followers' performance outcomes. Finally, under the conditions that intellectual stimulation leader is the strongest contributor to followers' performance outcomes. It could seek more in-depth information by using qualitative study to explore the new theory.

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STUDY OF CUSTOMER SATISFACTION AND LOYALTY OF CHINESE COMMERCIAL BANK: CASE STUDY OF ICBC LULIANG BRANCH

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Abstract

This research aims to investigate customer satisfaction and loyalty at Industrial and Commercial Bank of China Ltd.'s (ICBC's) Luliang Branch. The objectives are: 1) to investigate the relationship between service mix and customer satisfaction, and 2) to investigate the relationship between customer satisfaction and customer loyalty. This research surveyed customers of ICBC, with useable data received from 436 questionnaires. The data were analyzed by frequency, percentage and linear regression. The results of the preliminary study indicate that service mix influenced customer satisfaction and customer loyalty. Moreover, ICBC should pay more attention to service-mix issues that influence customer satisfaction and loyalty. The results are indicated by an R-square value of 80.9%; on the other hand, the value for customer satisfaction and customer loyalty is 65.3% for the bank's service marketing strategy. ICBC should place greater concern on its employees and processes, such as its service efficiency. The study's results show that these two factors have greater influence than the other five.

Keywords:

Customer satisfaction; Customer loyalty; Commercial bank; Service mix.

Introduction

China has become one of the world's biggest financial markets since joining the World Trade Organization in 2002. With China's WTO membership came greater competition in the banking field from numerous foreign banks opening branches and service points in China, as well as from other Chinese banks that took advantage of China's entry into the WTO to build their customer bases. As the largest bank in the world by total assets and market capitalization, Industrial and Commercial Bank of China Ltd. (ICBC) also faces competition from other banks such as Bank of China, Agricultural Bank of China, and China Construction Bank. With competition growing yearly, a study of customer satisfaction and customer loyalty is significant if a commercial bank wants to defend and increase its market share and profit.

A great number of papers have contributed to the study of customer satisfaction and loyalty toward banks. The conclusion was reached that customer satisfaction together with barriers or switching costs were key factors affecting loyalty. Similarly, there is a theoretical framework that considers the perceived quality to be one of the indirect antecedents of loyalty and has a direct influence on customer satisfaction, although the nature of the causal relationship between quality and customer satisfaction is the subject of great academic debate. While quality researchers claim that satisfaction is an antecedent of quality (Carman, 1990;

Parasuraman et al., 1988; Bitner, 1990), researchers in the field of customer satisfaction have the opposite point of view (Woodside et al., 1989; Reidenbach and Sandifer-Smallwood, 1990; Cronin and Taylor, 1992; Fornell, 1992; Anderson and Sullivan, 1993). In the light of this, several authors stress the desirability of further comparison of the causal relationships between these two concepts. As a result, two questions need to be answered: (1) Does service mix have a relationship with customer satisfaction? (2) Does customer satisfaction have a relationship with customer loyalty?

To answer these questions, the paper focuses on the customers of ICBC's Luliang branch who have personal accounts or hold other ICBC products, such as credit or debit cards. This research surveyed 436 customers of ICBC (223 online and 213 from the bank's lobby). The bank's marketing strategy employs a service mix of seven factors that this research analyzed by frequency, percentage and linear regression. The factors are convenience, customer care, transactions, methods & systems, products & services and pricing. All of these factors are highly related to the level of customer satisfaction, with the service product and pricing being the most significant factors for building satisfaction (Banking Industry Customer Satisfaction Survey, 2013).

The results of the preliminary study indicate that service mix influences customer satisfaction and loyalty. Moreover, ICBC should pay more attention to service-mix issues that

influence satisfaction and loyalty. The results are indicated by an R-square value of 80.9%; on the other hand, the value for customer satisfaction and customer loyalty is 65.3% for the bank's service marketing strategy. ICBC should place greater concern on its employees and processes, such as its service efficiency. The study's results show that these two factors have a greater influence than the other five.

The remainder of this paper is organized as follows. Section 2 briefly reviews the literature about service-mix marketing, customer satisfaction and customer loyalty. Section 3 introduces the methodology, while Section 4 presents the results of the data analysis. Finally, section 5 summarizes results and offers concluding comments.

Literature review

Customer satisfaction and customer loyalty

(1) Concept and definition of customer satisfaction and customer loyalty

Customer satisfaction refers to the degree of customer satisfaction with products or services, and their psychological state as a quantitative measurement. The comprehension of customer satisfaction lies in understanding its meaning and content (AN Hexin and YANG Yi, 2011).

Customer satisfaction can be defined in other ways, such as in a consumer's fulfillment response (Andreassen, 2000). In measuring customer satisfaction in a

cogent manner, we can see it is a judgment about a product or service feature, or the product or service itself, providing a pleasurable level of consumption-related fulfillment, and includes levels of under- or over-fulfillment (Tronvoll, 2010). From those findings, it can be understood that satisfaction relates to a subjective evaluation of emotions. Satisfaction occurs as a function of disconfirmation and a relative output to input. The end result is a positive or negative feeling of fulfillment. Satisfaction can, therefore, be considered the consumer's evaluation of a product or service received. Hence, the evaluation of customer satisfaction becomes more important because customer behavior affects customer satisfaction. As mentioned in the introductory literature citations, loyalty is the No. 1 influencer of customer behavior. As independent from a theoretical platform, it has become a truism that service quality is key to customer satisfaction (Bae Suk et al., 2009). However, if a company manages to deliver services of expected quality all the time, it will result in a negative disconfirmation of expectations or a perception of inequity.

(2) Customer satisfaction with banks

Some research found that customer satisfaction can be affected primarily by a variety of cognitive and affective variables. Cognitive measures include disconfirmation and expectations (Oliver, 1980), as well as perceived performance (Tse and Wilton, 1998). Later intentions to improve the measurement of customer satisfaction led

to the discovery of affective variables. Positive relationships have also been found between emotional measures of satisfaction and repurchase intentions (Martin et al., 2008; Chitturi et al., 2008). As expected, a positive effect is positively related to satisfaction, while a negative effect is negatively related to satisfaction, and both positive and negative effects are related to post-purchase word of mouth (Westbrook, 1987). Satisfaction is also positively associated with arousal and pleasure (Ladhami, 2007). Patterns of satisfaction, dissatisfaction and an unemotional pattern of emotional experience have also been identified (Westbrook and Oliver, 1991). Also the consistencies with expectations hold positive relationships between cognitive and affective judgments and satisfaction (Mano and Oliver, 1993).

(3) Customer satisfaction related to customer loyalty

Customer satisfaction is believed to be influenced by other variables, including service-quality perceptions and expectations (Patterson et al., 1997; Szymanski and Henard, 2001). This is exemplified in the disconfirmation paradigm, which explains that when perceived product performance equals expectations, the consumer is satisfied, but when it exceeds a customer's expectations (a positive disconfirmation), the customer feels "delighted." However, if the perceived performance falls short of a customer's expectations (a negative disconfirmation), the customer feels dissatisfied (Schiffman and Kanuk,

2004). Researchers acknowledge the importance of customer satisfaction and service-quality perceptions as predictors of customer loyalty (e.g., Bloemer et al., 2002; Szymanski and Henard, 2001; Lassar et al., 2000). However, Newman (2001) believes that the true value of customer satisfaction and service quality in contributing to genuine attitudinal loyalty remains open to debate (Newman, 2001). Such conflicting opinions make provisions for further studies (Jamal and Naser, 2002). It is predicted, therefore, that customer satisfaction and service-quality perception will jointly predict customer loyalty.

Service mix

(1) Definition and conceptual of service mix

In "Marketing Professional Services" (Philip Kotler, Thomas Hayes and Paul N. Bloom, 2002), the authors consider service marketing mix to be an integral part of a service blueprint design. The service marketing mix consists of 7Ps as compared with the 4Ps of a product marketing mix. Simply put, the service marketing mix assumes the service as a product itself and adds three more Ps that are required for optimum service delivery. Zeithaml et al. (1985) conducted a literature review and found 46 publications by 33 authors between 1963 and 1983 that focused on the characteristics of services. They found that the most frequently cited characteristics were intangibility,

inseparability (of production and consumption), heterogeneity (or non-standardization), and perishability (or exclusion from the inventory). An overview by Edgett and Parkinson (1993) encompassing 106 publications from 1963 to 1990 points to a similar conclusion. The four characteristics were first put forward in an operations textbook by Sasser et al. (1978). Many other characteristics have been suggested, but have not been widely accepted. One example is the absence of ownership in service purchases mentioned by Judd (1964), Rathmell (1966, 1974), and in the overview of Lovelock and Gummesson (2004). It is notable that the characteristics are neither based on empirical research in an inductive way, nor developed from previous research and theories in a deductive way. They seem to be based on observations, anecdotes and practical experience (Shostack's widely cited article, "Breaking Free from Product Marketing," is based mainly on her experience as a vice-president at Citibank; see Shostack, 1977).

(2) Service mix in business

Service marketing literature focuses on the service encounter, i.e., the interaction between customers and service employees. The encounter also includes customer-customer interaction, interaction with physical products and the environment (the "service escape"), and the whole service system.

Bitner (1992) developed the concept of "service escape," a framework to describe the role of the physical aspects of an environment in which services are

produced and experienced by customers. Bitner (1992) also emphasizes the key role of the physical environment, such as packaging, as a differentiator and a facilitator in shaping customer behavior. In fact, there are no such things as manufacturing companies and service companies; goods and services always appear in symbiosis, though in varying proportions. As a consequence, it is advisable to use goods and service as perspectives rather than as strict categories of companies or industries. Marketing management has been fixated on a goods perspective, and the major contribution of service marketing is to rectify this imbalance. During the 1980s and 1990s, service marketing textbooks that offer overviews of the discipline have been published; recent examples include Zeithaml and Bitner (1996) and Lovelock, Patterson and Walker (1998).

Related literature review

This section focuses more on literature pertaining to the relationship among customer satisfaction, customer loyalty and service marketing as previously mentioned, in which some papers consider two main fields: service marketing and the marketing domain area.

(1) Customer satisfaction related to customer loyalty

For the service marketing field, much literature discusses how customer satisfaction influences customer loyalty, which in turn affects profitability. Researchers argue that customer

satisfaction results from customer perceptions of the value received in a transaction or relationship, whereby value equals perceived service quality relative to price and customer acquisition costs (Blanchard and Galloway, 1994; Heskett et al., 1990). Loyalty behaviour includes relationship continuance, increased scale or scope of the relationship, and recommendations (word-of-mouth advertising) resulting from customers believing that the quantity of value received from one supplier is greater than that available from other suppliers. For a service firm, such as a retail bank or hospital, some researchers examine the links between satisfaction, loyalty and profitability. Statistically driven examination of these links has been initiated by Nelson et al. (1992), who demonstrate the relationship between customer satisfaction and profitability among hospitals. Rust and Zahorik (1991) examine the relationship of customer satisfaction with customer retention in retail banking.

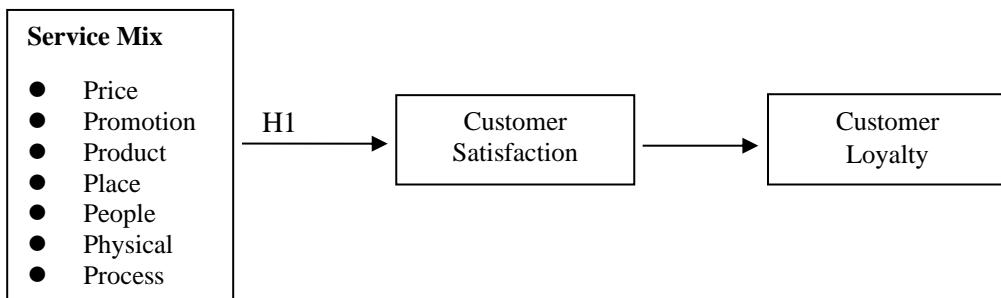
(2) Customer satisfaction and customer loyalty related to retail banks

In the retail banking market, the length of a relationship between bank and customer is a common feature. An important tradition for banks and other financial services organizations is to engage in long-term customer relationships. On this point, Stewart (1998) agrees that the reasons for such relationship longevity are open to interpretation. While genuine preference and loyalty may be instrumental, ignorance, inertia and dependence can

also play a part.

Some papers argue that loyalty and satisfaction are related, though clearly distinct. Morrisson and Huppertz (2010) and Sousa and Voss (2009) mention that several conceptual bases are considered for this distinction, but, in general, higher satisfaction has been proposed to be related to higher loyalty. As has been hypothesized and borne out in the marketing literature (Morgan and Hunt, 1994; Singh and Sirdeshmukh, 2000; Sirdeshmukh et al., 2002; Weun et al., 2004; Pina e Cunha et al., 2009), trust is logically and experientially a critical variable in relationships. Those who are unwilling to trust a vendor in a competitive marketplace are unlikely to be loyal. The importance of trust in explaining loyalty is also supported by Chaudhuri and Holbrook (2001), Singh and Sirdeshmukh (2000), Sirdeshmukh et al. (2002) and Rod and Ashill (2010). The impact of satisfaction on customer loyalty is complex. Fisher (2001) believes that customer satisfaction accounts for only part of why people change product or service providers. Other studies have shown that customer satisfaction is a leading factor in determining loyalty (e.g., Anderson and Fornell, 1994; Rust and Zahorik, 1993). Thus, there are conflicting reports on the relationship between customer satisfaction and loyalty, making it imperative for more empirical studies to address this issue. The present study, however, predicts that customer satisfaction will correlate positively with bank customer loyalty.

Conceptual framework



Research hypothesis

Hypothesis 1: The service mix has a positive relationship to ICBC customer satisfaction.

Hypothesis 2: Customer satisfaction has a positive relationship to ICBC customer loyalty.

Methodology

Research design

The sampling method used by Krejcie & Morgan in their 1970 article, "Determining Sample Size for Research Activities," was employed for this study. Placing the customer base of 74,157 (population) against the table of Krejcie & Morgan at a confidence level of 95% results in a sampling population of 382. To ensure sufficient data reliability, 600 questionnaires were sent to ICBC Luliang Branch customers via online media (400) and paper (200), and 436 useable surveys were returned. The data were then reviewed to ensure that every question was answered. Data gathered from the customer survey (data capturing attitudinal loyalty and customer satisfaction) and the bank's database (data capturing customer behaviour)

were then analyzed using an R-squared regression model.

Research tools

The questionnaire used in this study focuses on the relationship between the service mix and customer satisfaction and the relationship between customer satisfaction and customer loyalty; the research includes the 436 questionnaire responses as well as the previous literature review.

Research survey

The questionnaire's design was primarily based on multiple-item measurement scales taken from previous research. The items were adapted to the specific characteristics of the research setting. Customer satisfaction and loyalty toward the bank were measured on a scale containing 48 five-point Likert-scale

items that were separated into three parts: service mix, customer satisfaction and customer loyalty. Part 1 of the questionnaire includes questions about demographics with results measured by mean and standard deviation, while part 5 contains customer suggestions, whose scale was developed on the basis of a qualitative research study conducted prior to the quantitative data collection phase. This scale was also pre-tested and found to be valid and reliable. Cronbach's alpha for this scale was 0.5. With regards to perceived service quality, items were based on the service quality literature (e.g., Parasuraman et al., 1988) on the results of a qualitative study for a bank setting. To measure satisfaction, customers were asked to state their satisfaction and loyalty toward the bank ("How satisfied are you with..."). The study uses five-point Likert scales, and respondents specified their level of agreement from strongly agree to strongly disagree. Each questionnaire consists of many statements to better capture the degree of perception.

Experiments and data collection

Around 600 questionnaires were initially sent to ICBC Luliang Branch customers with two ways to collect the data: online (400) and on paper (200). A snowball sampling was applied to increase the sample size and identify other information related to this study. After collecting the data, statistical tools were employed to analyze the three factors that influence ICBC consumers' decisions.

To ensure reliability of the data, the online questionnaire was conveyed by the Chinese communication tool QQ (full name OICQ, or "I will find you"), considered to be the most widely used communication tool among Chinese people. The website [wenjuan.net](http://www.wenjuan.net) (<http://www.wenjuan.com/s/JRnQze>) was used to create the questionnaire with a link for respondents to access it (the link was

<http://www.wenjuan.com/s/JRnQze>). In addition, paper questionnaires were sent to the ICBC branch, where respondents with accounts at ICBC or those who used ICBC services could complete them. Paper-based data were collected and transferred to [wenjuan.net](http://www.wenjuan.net), which aided in the statistical analysis work such as testing the percentage of the respondents' demographic situation. Of the 600 questionnaires distributed, 436 were returned.

Data measurement and analysis

Descriptive statistics

Descriptive statistics are used to describe the basic features of the data collected from the questionnaire:

Percentage and frequency: used for analysis of part 1 demographic data such as gender, age and education.

Means and standard deviation are used for analysis of parts 2, 3 and 4.

Inferential statistics

Inferential statistics are used to test the hypothesis. Multiple regression is used for test hypothesis 1: the relationship between service mix and customer

satisfaction. Simple regression is used to test hypothesis 2: the relationship between customer satisfaction and customer loyalty.

Measurement of variables

(1) Measures of customer satisfaction

Customer satisfaction was measurement consists of responses to a single question on customer-satisfaction: "Overall, how satisfied are you with..." Responses for all satisfaction questions were made on five-point Likert-type scales, from "very satisfied" (1) to "very dissatisfied" (5). The problems associated with the use of a single-response variable were mitigated by the simplicity of the question; and Yi's (1990) suggestion that a single overall satisfaction measure scored as this one is "reasonably valid."

(2) Measures of customer loyalty

Measures of customer loyalty were selected because they reflect both length (retention) and depth (cross-sell) of the bank-customer relationship. Length of relationship is reported by both division-reported customer retention rates (percentage of customers who remained customers during 1993) and mean customer-reported relationship tenure. Relationship depth is measured by division cross-sell rates, which record the percentage of customer households with multiple accounts (account cross-sell) and multiple services (service cross-sell). With five-point scales, the interval for breaking the range in measuring each variable is calculated by:

$$\frac{5 - 1}{5} = 0.8$$

(3) Control variables

Control variables are included in certain analyses: either service mix factors or experiential (the customer having contacted the bank with a question or problem in the past year, or consider the bank as the customer's primary bank). The criteria used to determine a mean range are as follows:

Strongly agree	= 4.21~5.00
Agree	= 3.41~4.20
Neutral	= 2.61~3.40
Disagree	= 1.81~2.60
Strongly disagree	= 1.00~1.80

Reliability analysis

Reliability is defined as the extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials. This study employs internal consistency, which concerns the extent to which items on a test or instrument measure the same thing. The appeal of an internal consistency index of reliability is that it is estimated after only one test administration and therefore avoids the problems associated with testing over multiple time periods. Internal consistency is estimated via the split-half reliability index, coefficient alpha index (Cronbach, 1951).

Before testing all the samples, the researchers found 30 questionnaires for pre-testing and discovered a reliability result of 99 percent; typically an alpha should be at least 70 percent, so here the pre-test shows the questionnaire to be sound.

Results

This section presents the results of the data analysis. The data were collected and then processed in response to the issues mentioned in Section 1 of this paper. Two fundamental goals are the collection of data and the subsequent data analysis. Those goals were developed as a knowledge base on the ICBC decision maker or the other financial service, and to determine if the current perception and utilization are consistent with the basic goals and principles of ICBC's future development.

A summary of the data collection and reliability testing results

Response sample

Six hundred questionnaires were sent to ICBC Luliang branch customers, with two ways of collecting the data: from 400 online questionnaires and 200 paper-based questionnaires, with 436 useable questionnaires returned at a response rate of 72%. The unusable surveys totaled 164.

Questionnaires were returned by 202 male respondents, or 46.33%, and 234 female respondents, or 53.67%; the number of respondents aged 18~25 years

old is 135, or 30.96%, aged 26~30 years old is 139, or 31.88%, aged 31~35 years old is 68, or 15.6%, aged 36~40 years old is 46, or 10.55%, and aged over 40 years old is 48, or 11.01%. The occupations of respondents are categorized as student, business owner, employee, retired and other. Totals for each category are 93, or 21.33%; 64, or 14.68%; 183, or 41.97%; 20, or 4.59%; and 76, or 17.43%, respectively. Monthly income levels are categorized as less than 1,000RMB, 1,001~2,000 RMB, 2,001~3,000 RMB, 3,000~4,000 RMB and over 4,000 RMB. Totals for each category are 71, or 16.28%; 58, or 13.3%; 106, or 24.31%; 78, or 17.89%; and 123, or 28.21%, respectively.

Reliability of the data

In statistics, Cronbach's α (alpha) is a coefficient of internal consistency commonly used as an estimation of the reliability of a psychometric test for a sample of examinees. Further research shows that it can also be used for measuring business variables. For this research, the data from the 436 questionnaires were coded into statistical software, whose reliability mix for all questions for testing the results are shown in the table below:

Table 1 Model summary analysis

Sample	Model summary	
	N	%
Valid	436	100.0
Excluded ^a	0	0.0
Total	436	100.0

Table 1 Reliability statistics analysis

Reliability statistics analysis	
Reliability statistics	
Cronbach's Alpha	N of Items
0.975	436

As shown in table 1, the number of questionnaires returned is 436 and equals 100%, while the second one shows Cranach's Alpha (α) to be 97.5%. In the theory of Cronbach, an alpha is used to estimate the proportion of variances whether it is systematic or consistent in a set of test scores. It can range from 0.00

(no variance, it is consistent) to 1.00 (complete variance, it is inconsistent) with all values between 0.00 and 1.00 possible. The result of this research is nearly 100%; with the lowest acceptable level at 70%, the results have high reliability.

The analysis level of agreement

Table 3 Overall factors mean and standard deviation

Factors	Mean	S.D.	Level of agreement
Product	2.14	0.735	Disagree
Price	2.75	0.758	Neutral
Promotion	2.43	0.768	Disagree
Place	2.19	0.675	Disagree
Process	2.81	0.737	Disagree
Physical	2.23	0.716	Disagree
People	2.36	0.661	Disagree
Customer satisfaction	2.38	0.622	Disagree
Customer loyalty	2.49	0.632	Disagree

Tables 3 shows the results of the level of agreement of ICBC customer feelings toward the firm's service. According to the five-point Likert scale, the means 1.81-2.60 reveal that the disagreement level affects customer satisfaction, customer loyalty and other related factors concerning ICBC's services.

The mean of product of all questions is between 1.92-2.40, which shows the

disagreement level of product on customer feelings toward ICBC services. Price shows a disagreement level whose mean is between 2.56-2.94. The mean of promotion of all questions is between 2.39-2.51, which shows the disagreement level of promotion on customer feelings toward ICBC services. Place, process, physical, and people show the disagreement level of place on customer feelings toward ICBC services.

Customer satisfaction was constituted into two dimensions: service mix (7Ps) factor and overall satisfaction of ICBC comprising nine questions. The mean of all questions is between 2.13-2.58, which shows the disagreement level of process on customer satisfaction toward ICBC services.

Customer loyalty was constituted into two dimensions: service mix (7Ps) factor and overall customer loyalty comprising nine questions. The mean of all questions is between 2.17-2.73, which shows the disagreement level of process on

customer satisfaction with ICBC services.

Summary of hypothesis testing results

This section will present the results of the relationship between service mix and customer satisfaction as related to Section 1 and the hypothesis of this paper.

The service mix has a relationship with ICBC customer satisfaction

Tables 4-6 show the results of the relationship between service mix and customer satisfaction.

Table 4 Model summary analysis

Model	R	R-Square	Model Summary		Std. Error of the Estimate
			Adjusted R-Square		
1	0.899a	0.809	0.806		2.47012

Model summary analysis table 4 shows the R Square is 80.9%, which means customer satisfaction can be explained by the service mix, but the adjusted R Square is 80.6%. The value of R-square

and adjusted R-square are nearly the same due to the number of observations being very large compared with the number of predictors.

Table 5 Anova analysis

Model	Sum of Squares	Anova ^b			
		df	Mean Square	F	Sig.
Regression	11036.585	7	1576.655	258.404	0.000a
Residual	2611.443	428	6.102		
TOTAL	13648.028	435			

Anova table 5 shows a p-value of less than 0.05. Thus, there is a relationship

between service mix and customer satisfaction.

Table 6 Coefficients

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	1.325	0.524		2.531	0.012
Product	0.174	0.073	0.091	2.394	0.017*
Price	0.080	0.062	0.044	1.291	0.197
Promotion	0.258	0.088	0.106	2.935	0.004*
Place	0.147	0.099	0.053	1.496	0.135
Process	0.408	.060	0.215	6.818	0.000*
Physical	0.222	.065	0.142	3.423	0.001*
People	0.660	.065	0.390	10.101	0.000*

* Indicates statistic significant at the five-percent level

Table 6 shows the coefficients of the service mix (7Ps) which have a relationship with customer satisfaction except for place and price; and the p-value is less than 0.05, which means that product, promotion, process, physical

and people have a positive relationship with customer satisfaction.

From the coefficient table and the detailed standardized coefficients columns, the formula to estimate customer satisfaction is as follows:

$$\text{Customer Satisfaction} = 1.325 + 0.174X_{\text{product}} + 0.258X_{\text{promotion}} + 0.408X_{\text{process}} + 0.222X_{\text{physical}} + 0.660X_{\text{people}}$$

The beta weights show that the people factor (0.660) is relatively stronger than the other factors in explaining the changes in customer satisfaction, but price and place are irrelevant to customer satisfaction.

Tables 4-6 show the results of hypothesis testing as follows:

The service mix strategy has a positive relationship with ICBC customer satisfaction.

Customer satisfaction has a positive relationship with ICBC customer loyalty

Table 7 Model summary analysis

Model	R	Model Summary		Std. Error of the Estimate
		R-square	Adjusted R-square	
1	0.808a	0.653	0.652	3.35912

The model summary analysis in table 7 shows that the R Square is 65.3%, which means customer satisfaction can be explained by the service mix; meanwhile, the adjusted R Square is 65.2%. The

value of R Square and adjusted R Square is almost the same, due to the number of observations being very large compared with the number of predictors.

Table 8 Anova analysis

Model	Sum of Squares	Anova ^b		F	Sig
		df	Mean Square		
Regression	9196.727	1	9196.727	815.044	0.000a
Residual	4897.133	434	11.284		
TOTAL	14093.860	435			

Anova in table 8 shows a p-value of less than 0.05. Thus, there is a relationship

between customer satisfaction and customer loyalty.

Table 9 Coefficients analysis

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients	Standardized Coefficients	Beta		
	B	Std. Error			
(Constant)	4.834	0.636		7.595	.000
CS	0.821	0.029	0.808	28.549	.000*

* indicated statistic significant at the 5 percent level

Table 9 shows the coefficients of the customer satisfaction, which has a relationship with customer loyalty. Table 9 shows the coefficients of the service mix, which has a relationship with customer loyalty and a p-value of less than 0.05, which means customer satisfaction has a positive relation to customer loyalty.

From the coefficient table and the standardized coefficients column, the formula to estimate customer satisfaction is as follows:

$$\text{Customer Loyalty} = 4.834 + 0.821X_{cs}$$

Generally tables 6-9 show the result of hypothesis testing as customer satisfaction having a positive relationship with ICBC customer loyalty.

Conclusion and discussion

Conclusion

According to the linear regression and Anova test for the two hypotheses, we know they are true for both hypotheses.

For Hypothesis 1, the results in research table 4 reveal that customer satisfaction can be influenced by the service mix dimensions, and the R-squared value (0.809) can be identified to signify that service mix has a significantly positive effect on customer satisfaction, which means the service mix has an effect on customer satisfaction; when the service mix operates well, customers will be more satisfied.

The coefficients result in table 6 show that five factors have a significantly

positive effect on customer satisfaction: product, promotion, process, physical and people, with the most effective factor being people. This means ICBC must make improvements in its employees' people skills.

For Hypothesis 2, this research finds that ICBC customer loyalty depends on customer satisfaction. As shown in table 7, the R-squared is 0.653, which means customer satisfaction has a significantly positive effect on customer loyalty; therefore, if ICBC increases customer satisfaction, customer loyalty will increase as well. Results from table 3 show that the highest dissatisfaction factor on customer loyalty is place; as mentioned earlier; the questionnaire has three questions under place. Most customers mentioned the inconvenience of going to ICBC, so the bank should open more branches. The second dissatisfaction factor is insufficient customer seating. Space should be redesigned to increase seating. The third factor involving location shows that if ICBC has good locations with many branches, customers are willing to go and use its services.

Discussion

This study focuses on details to which bank managers can devote more attention so as to develop and maintain relationships with their customers. Parasuraman (1998), in calling for research on how business customers judge supplier services, points out that customers may not see things exactly as

suppliers do. Thus, the data here cannot clearly indicate which factors contribute to stronger relationship marketing; instead, the data can only suggest what the service providers think and contribute to strong relationships. The supplier view is in itself important, but it may have to be modified if customer views differ. We agree with recent works that note the continued, strong need for research on both sides (the dyad as the unit of investigation: Tyler and Stanley, 1999) and for more measurement of congruence or gaps in supplier vs. customer views of service.

Based on the aforementioned research findings, this thesis offers the following analysis and conclusions:

Customer behavior

The questionnaire's first part focuses on demographics. Results displayed in Section 4 show that most ICBC customers are employees aged 26~30, which means they are likely drawn to ICBC's product line because of the bank's fame and prestige. As a result, they are unwilling to take risks, so perhaps ICBC can improve its products and services to this group of people by keeping in mind their characteristics. Furthermore, most of them have and use personal accounts and e-banking, so it seems they will use e-banking more as the technology develops; therefore, ICBC should focus on innovations for these two products to maintain competitiveness.

Service mix

This section employs the traditional way, the 7Ps strategy, with results showing that so far the customers give greatest concern to price and people.

1) Price: Price is an element of the marketing mix that fluctuates markedly in the financial services marketplace. Therefore, banking professionals should develop a better understanding of the pricing concept. This study suggests that for non-affluent consumers, "interest rates on loans and paying highest rates on savings" are a salient factor in choosing where they do their banking. Hence, banks and other financial institutions should price their offerings consistent with their needs to earn a fair profit.

2) Place: The location decision is one of the most important strategic decisions in the marketing mix. Researchers note that "when a service organization decides to target a portion of its marketing effort toward a given geographic area, whether it is a region, state, county, city, or neighborhood, it should be based on a careful analysis of the market potential of the area.

3) Process: The participants think ICBC service processing takes longer than necessary. The bank needs to overhaul its operations to raise them to a new level of efficiency. Applying marketing theory to meet customer needs, it is recommended that ICBC work to understand its customers better and develop a new strategy of service process so it can improve its profitability.

4) People: Staff are always the important part or key structure for any firm; they can be brand ambassadors for ICBC. This

means every employee is important to the bank; if one of them causes a problem, it will affect the perception of all ICBC services.

5) Physical evidence: The surrounding environment has a strong relationship with respondents as seen in the results from Section 4. From the questionnaire, the ATM and counter chairs are seen to represent the physical presence of ICBC. The bank should improve its ATM operations process to make it easier and more convenient; the seats should be comfortable and ample in quantity for customers. These factors should be accounted for when planning the marketing strategy.

6) Product: product refers to credit and debit cards, and the results show that the products have a positive relationship to respondents. They believe ICBC products are of good quality and they willingly use ICBC services because of the famous brand; however, some respondents are concerned about safety especially and the product warranty.

7) Promotion: in the questionnaire this comprises publicity, discounting and advertising. The respondents thought the discount was the most attractive promotion, but not advertising. Compared with other banks, ICBC should improve its advertising campaign.

Customer satisfaction

In the questionnaire's overall satisfaction section, the results show that more than half of participants feel satisfied with ICBC services and around 30 percent feel neutral. According to the 7Ps part of

questionnaire, ICBC's service products do not get 40 percent of those who are satisfied, and the rest of investigation are over half for all. This is a sign that ICBC must consider this to be the main issue and it must take action to improve services.

Customer loyalty

The result of the customer loyalty section shows the most disappointing part of services, with overall customer loyalty at 60 percent. Referring to Section 1 and the hypothesis of this research:

Hypothesis 1: The service mix strategies have an effect on ICBC customer satisfaction;

Hypothesis 2: ICBC customer satisfaction has a relationship with customer loyalty.

From Section 4's data analysis, table 9 shows ICBC customer satisfaction with a relationship to customer loyalty, and in the table, the service mix strategy also shows a highly positive relationship with customer satisfaction.

The relationship between service mix and customer satisfaction

The main issue addressed in this study is the relationship between customer satisfaction and service mix dimensions. The study's results show that the service mix sectors were presented in group. The research results find that customer satisfaction can be influenced by service mix dimensions and that the R-square value (0.806) can be identified with the service mix having a significantly positive effect on customer satisfaction.

This confirms the literature review in Section 2; Booms, B.H. and Bitner, M.J. (1999) explain that customer satisfaction can be predicted by the leverage of the service mix strategy, especially for the service industry, and the R-value of the service mix factors can indicate customer satisfaction.

The relationship between customer satisfaction and customer loyalty

This research found that ICBC customer loyalty depends on customer satisfaction as shown in Section 4, table 7, in which the R-squared is 0.653, which means customer satisfaction has a significantly positive effect on customer loyalty. This confirms the literature review in Section 2 that cites Martin et al. 2008, and Chitturi et al. (2008), who propose that customer loyalty is positively related to satisfaction. Furthermore, Mano and Oliver (1993) show that customer loyalty consistent with expectations has a positive relationship between cognitive and affective judgments and satisfaction.

This paper argues that the modern relationship movement leads organizations back to the pre-twentieth century with the global scale of the twenty-first century through the 1960s (i.e., Borden's 12Ps and McCarthy 7Ps). Relationship marketing is not a new discovery, but a re-discovery. The lack of evidence in the approach is not in the 4Ps or 12Ps. If we pay considerable attention only to the four generic categories rather than undertake a full analysis of their sub-activities, components and the related inter-relationships among the elements, they will, of course, argue that

the service mix approach does not capture the full extent and complexity of marketing, nor does it explicitly recognize the essence of relationships between a firm and a customer or any other partner. If one focuses one's attention and undertakes a full analysis of the abovementioned elements, one can find many relationships involved in them. Each of the 7Ps is a collection of sub-activities and has the potential to stimulate and create relationships between customers as well as with suppliers and dealers.

First of all, because of the nature of every banking operation, the marketing function is diffuse and involves large numbers of people in different roles. Second, active involvement in the marketing process is still a new experience for many bank managers and staff; there is some uncertainty about approaching the tasks involved. Third, some bank managers and staff tend to perceive the marketing function as somehow separate from their bank's "real business."

These difficulties can be countered partly by training and development programs and partly by ensuring that each staff member has a clear responsibility to the marketing and selling function. Marketing must become an integral part of all bank operations.

Implication for business

The result reveals how respondents want ICBC to improve most. Hence, the service mix factors that ICBC should

improve for its future marketing strategy are as follows:

People

To increase the efficiency of manpower, it must be recognized the ICBC staff play a critical role in delivering direct services to meet customer needs. From what customers said, it can be seen that staff must get better training from professionals on how to give better service and make customers happy. The part of most concern is about security, so ICBC should pay more attention to security during customer transactions; it is recommended that ICBC hire security staff with professional experience to make customers feel safer. This is a basic level at which to start building customer trust that can lead to greater loyalty. Employee attitude is also essential and should be included here. The literature review, Parasuraman (2005), and Chaudhuri and Holbrook (2001), mention that attitudinal loyalty is used to measure a service business normally. Attitudinal measurements use attitudinal data to reflect the emotional and psychological attachment inherent in loyalty, so a training course can help employees understand better and adopt a good attitude toward their duties.

Process

To improve the efficiency of transaction banking, to have it become short and simple, ICBC should provide training courses to employees so they can master their official skills. In addition, an efficient self-service counter should be set up to decrease the problem of long queues. The bank should also improve

communication between employees and customers. Customers believe employees do not communicate well with them, and in this case, a higher skill of communication course should be provided to employees.

Physical

For the physical part, customers point out that ATMs and the e-banking service are not easy to use; they want ICBC to improve the system by making it user-friendly. On this point, ICBC should increase its self-service equipment that can provide customers with convenience. Moreover, regarding the environment in the bank's sales space, customers point out that ICBC needs to improve it. An attractive branch can impress customers and leave them satisfied, thus bringing potential benefit. Convenience is also a key point for a financial services company. Success on these points can increase customer satisfaction and have customers return to use their services repeatedly.

Price

Reducing service fees and charging reasonable prices is an element of the marketing mix that fluctuates markedly in the financial services marketplace. Research results show that customers do not feel they are getting good value for what they are charged; therefore, banking professionals should develop a better understanding of the pricing concept. This study suggests that for non-affluent consumers, "interest rates on loans and paying highest rates on savings" are a salient factor in choosing where to do their banking. Therefore, banks and other

financial institutions should price their offerings consistent with those needs to make a fair profit.

Product

The quality of service products is not high enough to ensure customer satisfaction; table 3 reveals that customers find neither the ATM nor e-banking to be convenient. ICBC needs to overhaul its ATM operations to make the system easier to understand and operate. Fisher (2001) believes that customer satisfaction accounts for only part of why people change product or service providers; that is why product quality plays a key role in the service industry.

Promotion

Promotion in this study focuses on credit cards, advertising and publicity; according to respondents, the quality of the advertising and publicity are unimpressive and the credit card promotions are lame and lack appeal. Given the results, this paper suggests ICBC conduct research on promotion issues to learn what kind of promotions would be of greatest interest to customers as a means to increase its competitive advantage. For example, China Bank has done this part well, so ICBC can study its model to build a strong promotion strategy.

Place

The results of this factor show that respondents dislike ICBC's location as inconvenient. It is recommended that ICBC open more small branches in town and build a network that is easy to access. Another factor is the limited seating;

providing more seats with perhaps free drinks and magazines should be considered to alleviate boredom while waiting.

To summarize, the combined results show that ICBC must keep and develop customer loyalty if it is to thrive. Customers will choose ICBC if it develops many service outlets and offers convenience. According to the place strategy from the service mix, the location decision is one of the most important strategic decisions in the marketing mix. Researchers note that "when a service organization decides to target a portion of its marketing effort toward a given geographic area, whether it is a region, state, county, city, or neighborhood, it should be based on a careful analysis of the market potential of the area" (Kotler, Philip, and Paul N. Bloom, 1984). The element of distribution in the financial service industry is different from that of good physicality. Since financial services are intangible and to a large extent information-based, the distribution system must cater to the needs of the consumer segments. As consumer sophistication and affluence increase, delivery systems must expand through state-of-the-art technology.

Limitations & further research

There are several limitations in this research as follows:

Area

The study was conducted within a limited geographical area. It is possible that financial customers within the Luliang region of southwest Yunnan, China, may not be representative of all financial customers. However, the population in this region of China can be fairly representative of the remainder of the country's population. Overall, there are some cautions that must be considered in regard to this study's applicability to other geographical regions. Care should be taken if attempting to extrapolate results across countries. It is recommended that research be undertaken within a country in question to identify similarities and differences across cultures.

Sampling

A sample of 436 samples is insufficient to study ICBC's inner issues and problems; from the culture of ICBC, one can see a long history of a complicated company and customer structure. More ICBC branches are being built, while this research studied only a little part of a big firm. On the other hand, the samples were chosen from credit union customers. The limitation of selecting this target population for the study is that they may not be representative of customers at other financial institutions.

Questionnaire

The questionnaire is quite substantial. Therefore, the sampling group had to take time to read and complete it in its entirety. Sometimes the respondents were busy and hurried in their transactions, so their answers may not correspond to their true feelings.

Further research

The results in Section 4 show that customer satisfaction has a high effect on the customer loyalty, and service mix greatly affects customer satisfaction. In studying the relationship between the customer loyalty and service mix, results show that the relationship between those two dimensions are positively significant. For further research, a study is recommended as to whether ICBC customer loyalty has a positive relationship with service mix.

The questionnaire has five parts. The first part focuses on demographics, which can be studied for its effect on the service mix; managers can use demographics to identify the market and devise a strategy to meet customer needs. This is why the researcher wants to combine it with a service mix based on different demographics such as age, education and lifestyle, while using a service mix that devises a marketing strategy that will make implementation more logical and clear. A further study can be on the relationship between demographic and service mix.

This study was under the service mix whose specific factors are the 7Ps (price, product, place, promotion, people, physical and process). Now some research can be conducted under the 12Ps (product, price, promotion, place, political, power, public relation, probing, partitioning, prioritizing, positioning, people), and after the 12Ps, a study can be done more completely to discover the specific problem factors.

This study revealed that most ICBC customers are 18~30; further research can focus on this group and make more specific recommendations from its findings. Further problems at ICBC can

be studied and then reported with clearer results about customer preferences that could yield more significant outcomes for the bank.

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THE IMPACT OF MARCROECONOMIC FACTORS ON CHINA'S EXPORTS AND IMPORTS

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Abstract

This study examines the impact of macroeconomic factors including real effective exchange rate index and volatility, foreign direct investment, industrial production index, gross domestic product, growth rate of foreign income, foreign direct investment, industrial production index, tariff rate, growth rate of sample countries, growth rate of gross domestic product, a series of data on the exports and imports from the period of 2001 – 2014. Besides, it provides some brief policy suggestions based on these factors. According to empirical results, the volatility of real effective exchange rate has a significantly negative effect on China's exports while the growth rate of foreign income affects China's exports positively. Moreover, the real effective exchange rate and volatility also have negative effects on China's imports and there is a significantly positive correlation between domestic GDP and China's imports.

Keywords:

Real effective exchange rate, Volatility of real effective exchange rate, Industrial Production Index, Tariff rate, Foreign direct investment, Exports, Imports.

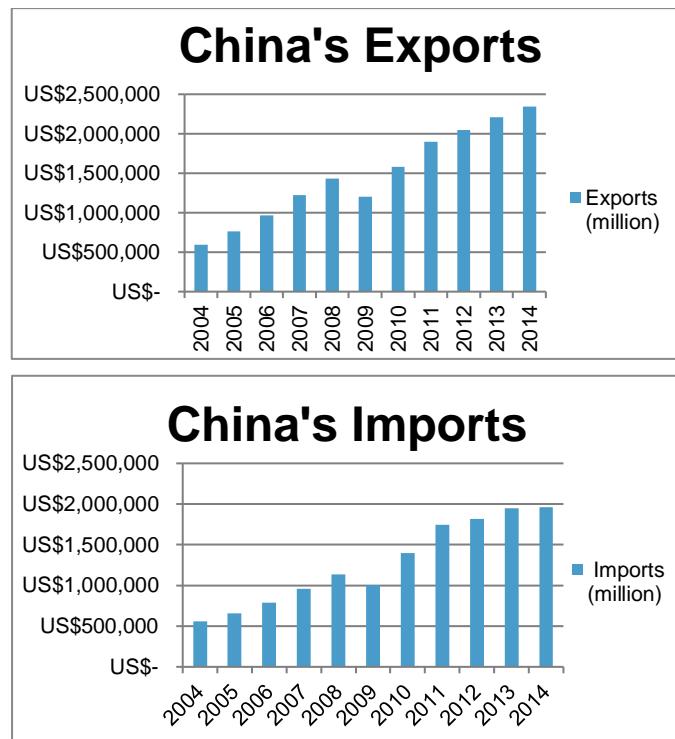
Introduction

Since the global financial crisis induced by the US subprime mortgage crisis in 2007, the economies in Europe and other world powers have been hit badly, witnessing a declined economic growth. Meanwhile, China's economy was still

seeing a slowdown in its growth. Nevertheless, the sustaining growth of China's economy has laid a good foundation for its economy. In fact, for a country, the currency is the primary international prerequisite for its

economic strength. Frankel (2006) mentioned that both fixed and flexible exchange rates have their own advantages, and a country had the right to choose the regime in accordance with its unique situation. The continuous appreciation of Chinese yuan, which though would make Chinese exports more expensive and thus produce

continuous impacts on the international demand for the domestic products, indicates, from another point of view, that China's imports will be increased. The impact of direct investments on the total international trade is mainly reflected in the complementary effects on trade. Kiyoshi (1973) believed that FDI exerts a complementary effect.



Source: Customs of China

According to Figure 1, which reflects the continuous development of China's export trade, from 2004 to 2014, the total export volume increased from \$593326 to \$2342293 with an average annual growth rate of 17.41%, while the export

share in the international market share and the global ranking had seen greater improvement.

In 2005, the largest sources of imports in China were Japan, EU, South Korea, ASEAN and Taiwan and since 2006, EU

has surpassed the ASEAN, South Korea as well as other regions to become China's second largest source of imports. It could be seen that since 2004, according to the regional distribution of imports, China's five major trade partners have been Hong Kong, EU, ASEAN, South Korea and Japan. The total import trade volume accounted for 55.2 percent of imports, with Hong Kong being its largest trade import partner. Under this international background, Chinese Yuan has become increasingly important in the world. Chinese Yuan

continued appreciating, in the other hand it means that the real effective exchange rate of Chinese yuan is in a continue increasing situation.

Objectives

The research aims to study the impact of macroeconomic factors on China's exports and imports. Particularly, the factors that affect China's exports and imports are REER of yuan, volatility of REER, foreign income, domestic GDP, the industrial production index, tariff as well as the foreign direct investment.

Hypotheses

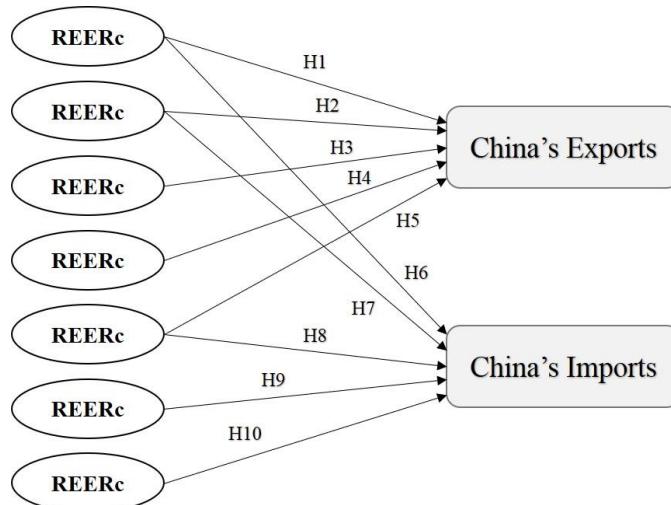


Figure 1 Framework of research

There are ten main hypotheses in my study are as follows:

H1: The real effective exchange rate of China (REERc) has negative impact on exports of China.

H2: The volatility of real effective exchange rate has negative impact on exports of China.

H3: The GDP of World has positive impact on exports of China.

H4: The IPI has positive impact on exports of China.

H5: The foreign direct investment has positive impact on exports of China.

H6: The real effective exchange rate of China (REERc) has negative impact on imports of China.

H7: The volatility of real effective exchange rate has negative impact on imports of China.

H8: The foreign direct investment has positive impact on imports of China.

H9: The domestic GDP has positive impact on imports of China.

H10: The tariff rate has positive impact on imports of China.

Scope of the study

In order to study the factors that determine exports and imports in China, the quarterly time series data of foreign direct investments, industrial production index, real effective exchange rate and volatility of the rate, gross domestic product, foreign income and tariff rate spanning from 2001 to 2014 are utilized. All the original data can be obtained from National Bureau of China, Customs of China, Federal Reserve Economic and Bank for International Settlements (BIS).

Benefits of the study

Based on this research, the relationship between China's exports and imports and macroeconomic factors would be found out through empirical results. The paper will benefit three types of people or organizations. Firstly, this study which provides a deep insight into the factors affecting China's exports and imports will help both the exporters and importers make appropriated decisions based on its conclusion. Secondly, it can prompt policy makers to implement monetary policy according to the changes of the exports and imports as well as exchange rate. Thirdly, it would also be useful to the researchers, export and import managers, and suppliers of exports and imports, including the governments.

Literature review

Many researchers have investigated the factors that affect China's export and import changes, in which the REER,

foreign GDP, domestic GDP and FDI are the main factors that have produced direct effects on exports. As is known to all, when a currency of a country appreciates, its exports will probably reduce. However, with the increase of yuan, China's exports have maintained its growth over the last decade.

Elastic Theory was first proposed by the famous British economist Alfred Marshall (1889) to explain the elasticity of demand. Lal and Lowing (2002), based on VAR model, selected quarterly relevant data of the East Asian countries to find out the J-curve effect with municipal analysis. Hacker and Hatemi-J (2003) pointed out that empirical studies have shown that in some European countries, there is an obvious J-curve effect. Huh Chang-Guk and Zhu Guangyao (2014) who used Johansen's co-integration method in their paper found that Chinese yuan real effective exchange rate (REER) significantly affected Japanese and Korean exports to China. Both two rates appeared to have the opposite sign of the export equation. Kargi (2015) who used the monthly data from 1992-2014, found that according to empirical analysis, there was a very closed long-term relationship between the foreign trade and currency exchange rate in Turkish economy. Greenaway, Kneller and Zhang (2010) found that there had been strong evidence showing that real exchange rate (REER) had a negative effect on the price of goods and services in foreign exports. Huh and Zhu (2014) who studied the real effective exchange rate (REER) and the bilateral real exchange rate (BEER) of Chinese

yuan, held that based on the Johansen's co-integration test, there were evidences showing that the REEF significantly affected Japanese and Korean exports to China.

Asad Abbas, Muhammad Ramzan Sheikh and Muhammad Nauman Abbasi (2015) mentioned that exports sales ratios were affected by firm size, real effective exchange rate and other control variables. Volatility of real effective exchange rate, the ratio of capital employed as well as the world's GDP also served as variables in the analysis model. In his paper, Hway-Boon Ong, et al. (2009) pointed out that Real Gross domestic Product (RGDP) of US and Japan had a positive correlation with exports of Thailand. Thorbecke and Kato (2012) who investigated the effect of exchange rate changes on Germany's exports by using the rest of the world income (WGDP) and REER to test correlation with the Germany's exports, found out that the real exchange rate has a long run equilibrium relationship with Germany's exports. Adewuyi and Akpokodje (2013) explored how the real effective exchange rate volatility affected the economic activities of Africa's sub-groups from the period of 1970 to 2011. Particularly, the growth rate of GDP, money supply and trade openness also have positive impacts on the consumption in international trade. In their study, Suresh and Reddy (2010) used GDP and exchange rate as the independent variables to illustrate the exports of India.

Oshungade (2015) selected 65 countries in his report to analyze the relationship

between GDP, inflation and export and import. And according to this survey, there is Granger causality between inflation, GDP and imports. Besides, imports and exports can also be affected by other multiple variables. Tirmazea and Naveed (2014) indicated that there was a peculiar trend of falling imports to GDP ratio in developing countries.

According to Hsiao (2006) who investigated in his paper the Granger causality relations in east and southeast Asia, FDI and GDP have a very relevant causal relationship in foreign trade.

Sato, Kiyotaka and Zhang (2013) found that in case of the won appreciation, the Korea electric power machinery companies saw a dramatically improved cost competitiveness by producing production at a lower cost while large factories of Japan suffered from the investment management misjudgment caused by excessive production capacity. Katsikea, Theodosiou and Morgan (2007) investigated the relationships between export sales and other variables by collecting data on 164 direct export sales in England. Becchetti and Rossi (2000) also presented an empirical test showing that direct industrial products positively affected exports.

In his paper, Clausing (2003) analyzed the impact of tax influence on trade price and the result indicated that there was a strong and significant relationship between tax rate and the price of import transactions. Besides, nonlinear causality test was used by Karagianni and Saraidaris to investigate the relationship

between taxation and economic growth (2003).

Nicholson (2013) in his paper explored the impact of value added tax (VAT), which refers to the refund of the domestic tax paid by the domestic export enterprises on production of import tax. Santos and Thirlwall (2004) found that a specific tariff led to higher quality and ad-tax usually caused the opposite. Quotas and tariffs dominated the valorem tariff benefits, and imports hampered national welfare to the minimum quality requirements. Macera and Divino (2015) explored how the tariff and exchange rate affect the economy based on the DSGE model. Import tariff serves as a variable that affects the price of imported products. It was found that the exchange rate appreciation could offset the increased initial effects on import tariffs.

Methodology

As a measuring tool, the ordinary least square is usually employed to estimate

$$\ln X_t = \beta_0 + \beta_1 \ln REER + \beta_2 \ln VOL + \beta_3 WGDG_t + \beta_4 \ln FDI_t + \beta_5 l \ln IPI_t + e_t \quad (1)$$

$$\ln M_t = \beta_0 + \beta_1 \ln REER + \beta_2 \ln VOL + \beta_3 GDG_t + \beta_4 \ln FDI_t + \beta_5 Tariff + e_t \quad (2)$$

Where,

$\ln X_t$: Natural logarithm of China's exports at period t

$\ln REER_t$: Natural logarithm of real effective exchange rate of yuan at period t

$\ln VOL_t$: Natural logarithm of volatility of real effective exchange rate at period t

$WGDPG_t$: The foreign income and also using the world's GDP growth rate represent

GDG_t : The domestic GDP growth rate at the year t

$\ln FDI_t$: Natural logarithm of foreign direct investment in China at period t

$\ln IPI_t$: Natural logarithm industrial production index of China

Tariff: The tariff rate of China, e is the random error

e_t : Error term

the unknown parameter in a regression model. Greenaway, Kaneller and Zhang (2010) investigated the relationship between exchange rate and international trade by using OLS model. There are seven independent variables will be tested whether they impact on China's exports and imports, and the gap of each variables are very big. Therefore, according to the hypotheses and the model of this study, it is appropriate to analyze the relationship between independent variables and dependent variables by OLS.

The result showed that the actual selected variables followed the general form of OLS model between export volume and exchange rate changes. Moreover, due to the negative value of GDP growth rate, the impact of variance could be reduced by just improving the data of exports, imports, FDI, REER, VOL and IPI which are processed with logarithm and the result is just the same. The following are the formulas:

Results

This study investigates the impact of macroeconomic factors on China's exports and imports by using the

quarterly data during the period of 2001-2014 for all the factors including dependent variables of exports and imports as well as independent variables such as $\ln REER$, $\ln VOL$, $WGDPG$, $GDPG$, $\ln FDI$, $\ln IPI$ and tariff rate.

Table 1 Unit root test

Variable	ADFtest	t			Prob.	Result
		1%	5%	10%		
lnX	-1.385628	-4.152511	-3.502373	-3.180699	0.8532	No-stationary
D(lnX)	-4.091463	-4.152511	-3.502373	-3.180699	0.0118	Stationary
lnM	-1.186349	-4.140858	-3.496960	-3.177579	0.9030	No-stationary
D(lnM)	-8.724180	-4.140858	-3.496960	-3.177579	0.0000	Stationary
lnFDI	-6.721699	-4.133838	-3.493692	-3.175693	0.0000	Stationary
lnIPI	-4.238274	-4.148465	-3.500495	-3.179617	0.0078	Stationary
GDPG	-2.890334	-3.565430	-2.919952	-2.597905	0.0535	Stationary
lnVOL	-0.364085	-3.555023	-2.915522	-2.595565	0.9077	No-stationary
D(lnVOL)	-8.067648	-3.557472	-2.916566	-2.596116	0.0000	Stationary
lnREER	-1.666901	-4.140858	-3.496960	-3.177579	0.7520	No-stationary
D(lnREER)	-6.497064	-4.140858	-3.496960	-3.177579	0.0000	Stationary
WGDPG	-4.084995	-3.555023	-2.915522	-2.595565	0.0022	Stationary
lnTariff	-5.081535	-4.175640	-3.513075	-3.186854	0.0008	Stationary

Table 1 shows the probability value of such variables as $\ln X$, $\ln M$, $\ln FDI$, $GDPG$, $WGDPG$, $\ln VOL$, $\ln REER$,

$\ln IPI$, Tariff according to the results of unit root test, which are stationary and can be used for the test.

Table 2 Descriptive statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
D(LNX)	0.043577	0.068598	0.209092	-0.367329	0.124025	55
D(LNM)	0.040120	0.041144	0.278569	-0.303021	0.098937	55
LNFDI	9.895063	9.940639	10.379940	9.208639	0.351799	55
LNIPI	5.966045	5.944373	6.405724	5.592478	0.243352	55
D(LNREER)	0.004333	0.002024	0.077304	-0.047167	0.026239	55
D(LNVOL)	0.004252	0.006622	0.095486	-0.096961	0.037365	55
WGDPG	1.195654	1.260664	3.546940	-1.586229	1.003621	55
GDPG	4.299553	7.592303	14.506620	-16.875070	10.668850	55
TARIFF	10.405450	9.800000	15.300000	9.800000	1.341837	55

In this paper, the three dependent variables of WGDPG, GDPG and Tariff which are stationary in level, are presented by percentage while the value of exports, imports, FDI, REER index, Volatility and IPI are so large, especially

exports, imports and FDI, that they have to be processed by logarithm. In addition, from ADF unit root test, it could be found that those data were in an orderly stationary sequence.

Table 3 Correlations among independent variables of model 1

	LNFDI	D(LNREER)	D(LNVOL)	WGDPG	LNIPI
LNFDI	1.000000	0.262773	0.262740	-0.044959	0.674360
D(LNREER)	0.262773	1.000000	0.310031	-0.320144	0.319430
D(LNVOL)	0.262740	0.310031	1.000000	-0.290919	0.199898
WGDPG	-0.044959	-0.320144	-0.290919	1.000000	0.126341
LNIPI	0.674360	0.319430	0.199898	-0.126341	1.000000

Table 4 Correlations among independent variables of model 2

	LNFDI	D(LNREER)	D(LNVOL)	GDPG	TARIFF
LNFDI	1.000000	0.262773	0.262740	0.044773	-0.536268
D(LNREER)	0.262773	1.000000	0.310031	-0.312565	-0.182461
D(LNVOL)	0.262740	0.310031	1.000000	-0.015491	-0.139102
GDPG	0.044773	-0.312565	-0.015491	1.000000	0.098097
TARIFF	-0.536268	-0.182461	-0.139102	0.098097	1.000000

Table 3 and table 4 show the result of the analysis of the correlations of all the independent variables by using a correlation matrix. A correlation analysis conducted in this paper found that the value of correlation coefficient which

was less than 0.8, was not above the limit value set of the multicollinearity, suggesting that there was no serious multicollinearity problem with all those independent variables which could be used to run regression.

Table 5 Regression results of model 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.191611	0.420213	-0.455985	0.650416
LNFDI	-0.041068	0.086032	-0.477355	0.635232
D(LNREER)	-2.071985	0.608410	-3.405573	0.001326***
D(LNVOL)	-0.191904	0.421700	-0.455073	0.651067
WGDPG	0.036697	0.015474	2.371499	0.021690**
LNPI	0.101822	0.124432	0.818292	0.417152
R-squared		0.363439		
Durbin-Watson stat		2.254633		
F-statistic		5.595235		
Prob (F-statistic)		0.000372***		

Note: *, **, ***= significant at the level of 10%, 5% and 1%.

Real effective exchange rate statistically and significantly determines exports in China at the level of 1%, which can be interpreted by the fact that when real effective exchange rate increase by 1%, China's imports will decrease by 2.071985% and when the former decreases by 1%, the latter will increase by 2.071985%. Foreign gross domestic

product growth rate (WGDPG) statistically and significantly determines China's imports at 1% level, which can be interpreted by the fact that when foreign GDP growth rate increases by 1%, China's imports will increase by 0.036697% and when the former decreases by 1%, China's imports will decrease by 0.036697%.

Table 6 Regression results of model 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.009276	0.423869	0.021885	0.982600
LNFDI	0.006187	0.037032	0.167066	0.868000
D(LNREER)	-1.645733	0.454184	-3.623492	0.0007***
D(LNVOL)	-0.532814	0.300463	-1.773308	0.0824*
GDPG	0.002891	0.001052	2.748229	0.0084***
TARIFF	-0.003211	0.009317	-0.344605	0.731900
R-squared		0.454287		
Durbin-Watson stat		1.947962		
F-statistic		8.158173		
Prob(F-statistic)		0.000012***		

*Note: *, **, ***= significant at the level of 10%, 5% and 1 %.*

The results of exports and imports show that the values of DW equal to 1.509309 and 1.975645 respectively, which are greater than 1.374 and less than 2.232. Hence, there are no auto-correlation problems with both two models.

Conclusion and discussion

The significant factors affecting imports and exports

According to the regression results, three factors including volatility of real effective exchange rate (VOL) and foreign income (WGDPG) affect China's exports. Especially, the foreign income has positive impact on China's exports significantly when it is at the level of 0.05 and the real effective exchange rate has negative impact on China's exports significantly at the level of 0.01, which is why the null hypotheses are accepted. It can be found that three dependent

variables including real effective exchange rate (REER), volatility of real effective exchange rate (VOL) and gross domestic product (GDP) have been related to China's imports. Particularly, real effective exchange rate and volatility had significantly negative correlations with China's imports at level 0.01 and 0.1. Besides, there is a strong positive correlation between gross domestic product and China's imports.

For real effective exchange rate (REER), according to the above empirical results, the real effective exchange rate plays an important role in exports and imports of China. Generally, the real effective exchange rate has a significantly negative effect on foreign trade, which has been proposed by Greenaway, V.Nagi, Reddy (2014) and Antoine Berthou (2008).

For the growth of GDP (GDPG), it has a positive effect on the actual China's import significantly, which is in consistent with literature reviews by

Tirmazea and Naveed (2014). If domestic income increase leads to increased exports, it is feasible for the government to boost the GDP so as to increase exports and reduce the trade surplus.

For the volatility of real effective exchange rate (VOL), it has affected China's imports, and Reza Sirgar and Ramkishen S.Rajan (2004) produced the same result. However, the hypothesis that the volatility of real effective exchange rate impacts China's exports was rejected by the regression test.

The insignificant factors

However, the other three variables, which are volatility of real effective exchange rate, industrial production index and foreign direct investment have no impacts on China's exports, suggesting that the null hypotheses are rejected. In addition, another two variables which are foreign direct investment and tariff rate have no impacts on China's imports either. Moreover, investigation has found that there has been little change in the average tariff rate, suggesting that it is insignificant.

For foreign direct investment (FDI), empirical results show that it has no impact on both China's exports and imports, which rejects the hypotheses. The results seem to be inconsistent with literature reviews, including those made by Singh (2002), Pacheco and López (2005), Galan (2006), Hsiao (2006), Muhammad et al. (2015), Yao (2006),

Mutascu (2011) and so on. In his research, Arshad Muhammad (2012) who studied the FDI influence on trade and economic growth of Pakistan, found that according to the result of the examination of the relationship between FDI and exports, the hypothesis that FDI has produced a significant impact on exports in Pakistan should be rejected. The same result was reached by Chow (2012), who held in his research that there is no significant impact on imports under the fixed effects and random effects models with dummies by regression method of analyzing the relationship between FDI and Korea's imports and exports. In fact, it even has no significant effect on exports and imports in Taiwan.

For the foreign income (WGDP), there is a positively significant relationship between foreign income (WGDP) and exports in China, suggesting that the hypothesis of foreign income affecting China's exports is supported by the regression result. In other words, in China, an increase of foreign income will lead to an increase of exports, which has been proposed by Suresh and Reddy (2010), Tarlok Singh (2004), Adewuyi and Akpokodje (2013), Reddy (2010).

For the volatility of real effective exchange rate (VOL), the result seems to be different from that of other related literatures. It is worth noting that the exchange rate volatility is not totally transferred to the exports price, because exported intermediate goods form constitute only part of the final goods, and the effects of exchange rate fluctuation on the export price, the

wholesale price as well as the retail price are witnessing a gradual decrease.

The result suggests that industrial production index (IPI) has an insignificant correlation with exports in China from the result, which is not consistent with literature reviews. According to the early empirical researches, there was a positive relationship between industrial production index and exports, which had been proposed by researchers such as Becchetti and Rossi (2000). There is a positive but insignificant relationship between industrial production index and exports, and the hypothesis that the industrial production index has an impact on exports of China was rejected by empirical results.

For tariff, the result shows that the hypothesis of tariff is rejected, indicating that tariff has no effect on China's imports. The result seems to be inconsistent is not consistent with literature reviews, but the coefficient is positive in according to the regression result of Model 2, which have been supported by such researchers as Clausing (2003), Karagiann and Saraidaris (2003), Nicholson (2013), Santos and Macera and Divino (2015).

The quarterly data was used to examine in this paper. Therefore, the data of some variables are collected by monthly data, and then the error may occur in the process of converting the data from monthly to quarterly. It is the one of important reason the factors have not consistent with the previous studies in the past.

Implication and recommendation

The results show that such factors as foreign direct investment and tariff rate have no impact on China's exports and imports. In addition, to make more precise and exact research, this study provides some recommendations. Firstly, real effective exchange rate is an import important factor which that has a significant impact on China's exports and imports. After exchange rate reform in China, the exchange rate of yuan fluctuates with higher frequency, which presses domestic enterprises to step in foreign exchange markets with greater threats. With regard to export, in order to achieve higher export competitiveness and diversification, several policies need to be implemented.

Secondly, it is necessary for the government to implement policies to encourage export by, such as exemption of export tax rate, investment incentive. If developing countries want to get rid of poverty, barriers to their exports have to be removed. The availability, capacity and competitiveness of domestic producers should be improved to enhance export performance. Besides, China should also increase necessary imports so as to improve the trade balance by integrating import with the adjustment and upgrading the domestic industries as well as technology imports, in which it is important to further expand the bilateral trade scale and realize trade balance.

Finally, this study applies the OLS model to examine the impact of macroeconomic factors on China's exports and imports.

Given the fact that the real effective exchange rate has a significant effect on China's international trade and the GDP is also an important factor for exports and trade, future researchers can increase investigation in this regard on the basis of the results.

Limitations of the research

After empirical test for this study, there are a lot of macroeconomic factors impact on China's exports and imports, there are some factors which effecting exports and imports might be missed to examine in this research. The quarterly data was used to examine in this paper. If

possible, the monthly data may be used to get more accurate results. The weighted average tariff rate is used to represent dependent variable Tariff to investigate in this study. This paper did not divided sectors to examine how the tariff affects China's imports. The last lamination is the OLS model is used to examine the macroeconomic factors impact on China's exports and imports. Therefore, VAR model and VEC model were extensive using to analysis the factors impact on performance of exports and imports, which means OLS model might not the best econometric method to examine the impact on exports and imports.

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THE INFLUENCE OF CULTURAL DIFFERENCES ON HUMAN RELATION ASPECTS OF ORGANIZATIONAL CLIMATE AND JOB SATISFACTION

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Abstract

The findings of the influence of cultural differences on multinational enterprises state controversies. An exploratory research in Thailand attempts to clarify the effects of cultural difference on subsidiaries of multinational enterprises by comparing two subsidiaries operating in Thailand. One exposed to high and one exposed to low cultural difference, defined by Hofstede's cultural dimensions "Individualism" and "Power Distance". Organizational climate dimensions, assuming to be influenced by the cultural differences among the employees of the subsidiaries, and its relationship to job satisfaction dimensions are being examined by using descriptive analysis, analysis of variance (ANOVA) and correlation analysis. This study contributes to both theoretical and practical realms. Theoretically, this study contributes to the literature of organization studies, since it has been found that cultural difference does affect organizational climate to some extent, and that there is a positive relationship between organizational climate and job satisfaction. Especially the organizational climate dimensions of "Integration" and "Welfare" correlated significantly with the mean values of job satisfaction in both subsidiaries. Moreover, the subsidiary exposed to high cultural differences showed lower perceived organizational climate dimensions and a lower perceived job satisfaction by the employees, in comparison to the subsidiary exposed to low cultural differences. Regarding practical implications, this study suggests that multinational enterprises need to be aware of these cultural influences and seek to improve their organizational climate, due to its relationship to job satisfaction and indirect influence on overall firm performance.

Keywords:

Cultural difference, Multinational companies, Subsidiaries, Organizational climate, Job satisfaction, Firm performance

Introduction

Multinational Enterprises (MNE) have become a central part of globalization, which influence the economic, political and social environment throughout the world (Collinson & Morgan, 2009). A MNE is defined as “*a firm that controls operations or income-generating assets in more than one country*” (Jones, 1996:4). Consequently, MNEs are constantly in contact with different cultures when entering foreign markets in form of employing multicultural labour, negotiating with foreign contractors or aiming to satisfy the needs of the stakeholders, to name but a few (Rozkwitalska, 2013). Hofstede (2014) defines culture, as “*the collective programming of the mind distinguishing the members of one group or category of people from others.*”

Therefore the question arises, how does cultural difference affect a multinational firm and its performance. Some organization studies that examined the relationship between cultural differences and performance found that cultural differences have a negative effect on firm performance (e.g. Li & Guisinger, 1992). Other studies conclude that they add value to the parent firm (e.g. Ghoshal, 1987). Moreover, other data find no significant effects at all (e.g. Ahammad, Tarba, Liu & Glaister, 2014). Therefore, the results of the findings regarding the impact of cultural difference on firms and their performance are controversial.

Research objectives

This study uses a modified approach to add to the field of organization studies, which include cultural influences, by using selected factors which affect firm performance, rather than just analysing the relationship between cultural differences and financial performance data. One selected factor is organizational climate, as a construct in firms, which is being influenced by people, therefore being influenced by culture (Hofstede, 2014). Organizational climate can be defined as the various particular perceptions which employees form when describing and reflecting on the organization they work for (Denison, 1996).

Furthermore, according to previous research, organizational climate influences job satisfaction (e.g. Yi-Jen, 2007) and job satisfaction affects job performance (e.g. Jones, Jones, Latreille and Sloane, 2009). Moreover, since job performance affects firm performance (e.g. Farooqui & Nagendra, 2014), the influence of cultural differences on job satisfaction will also be analysed. “*Job satisfaction is defined as the extent to which employees like their work.*” (Abraham, 2012: 27).

Therefore, organizational climate and job satisfaction will be used as elements of a firm which are being influenced by cultural difference, as well as affecting firm performance indirectly, to achieve the objective of this study. This is analysed by comparing two subsidiaries operating in Thailand, whereby one subsidiary originates from a country with high cultural differences and the other from a country with low cultural

differences in respect to Thailand, whereby both subsidiaries employ foreign and local staff.

Research questions

The research questions will be based on Hofstede's (2014) cultural dimensions, since its application will allow defining cultural differences. According to the 6

dimensions of national culture of Hofstede (2014), there are always two opposite implications per cultural dimension (see table 1), depending on the score. The scoring of Hofstede's (2014) dimensions allows quantifying cultural differences. Scorings between 1-50 points indicate one implication of a dimension, whereas scores of 50-100 points indicate the other implication of that dimension.

Table 1 Hofstede's 6 dimensions of national culture (Hofstede, 2014)

Dimensions	Implications of the dimension
1. Individualism	Individualism vs. Collectivism
2. Power Distance	Low Power Distance vs. High Power Distance
3. Uncertainty Avoidance	Low Uncertainty Avoidance vs. High Uncertainty Avoidance
4. Masculinity	Masculinity vs. Feminity
5. Time Orientation	Short Term Orientation (Pragmatic) vs. Long Term Orientation (Normative)
6. Indulgence	Indulgence vs. Restraint

Ahern, Daminelli and Fracassi (2012) state that the two dimensions "Power distance" and "Individualism" are the only two dimensions, which are also occurring in various other cultural models (e.g. Fiske, 1992; Trompenaar & Hamden-Turner, 1993; Schwartz, 1994). The occurrences of these particular two dimensions in different models suggest that these are essential components of national culture. For this reason, this study will focus on the dimensions of "Individualism" and "Power Distance", which are defined subsequently and applied to the Thai culture.

The Power Distance Index (PDI) is defined by Hofstede (2014) as: "This dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally" (Hofstede, 2014). The PDI in Thailand scores 64 points, meaning that the culture is slightly leaning towards accepting hierarchical structures. (Hofstede, 2014)

The Individualism versus Collectivism (IDV) dimension is defined as "The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves

and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty.” (Hofstede, 2014). The IDV in Thailand scores 20 points and is therefore highly collectivistic.

Hence, following underlying research questions a) and b) are derived:

a.) How is the organizational climate influenced of subsidiaries in Thailand, which are exposed to large cultural differences defined by Hofstede's (2014) cultural dimensions “Power Distance” and “Individualism”, in comparison to a subsidiary operating in the same market, which is exposed to low cultural differences?

b.) How is the job satisfaction influenced of subsidiaries in Thailand, which are exposed to large cultural differences defined by Hofstede's (2014) cultural dimensions “Power Distance” and “Individualism”, in comparison to a subsidiary operating in the same market, which is exposed to low cultural difference?

Literature review

Successively, examples of effects of cultural differences on firms and the reasoning for those influences will be stated as well as the relationship between organizational climate, job satisfaction

and firm performance, according to previous research findings.

Positive influence of cultural differences on firm performance

Morosini, Shane and Singh (1998) find that, cultural differences had a significant positive effect on the performance of cross-border acquisitions, especially in countries which were culturally more distant to the MNEs home-country. due to the enabling of the access to differing routines and capabilities.

A major identified gain of interacting with countries which are culturally distant, is the possibility that the two cultures can learn from one another and therefore enhancing knowledge-based resources (Vermeulen & Barkema, 2001). Therefore both the investing MNE as well as the foreign employees, partners or associated parties may benefit from the cultural distance of their countries respectively.

Negative influence of cultural differences on firm performance

According to various findings, high cultural distance results in lower performance when involved in business in foreign markets (e.g. Brock, Barry & Thomas, 2000) Furthermore, Ahern *et al.* (2012) concludes that cultural difference results in considerably higher costs in cross-border mergers, holding other factors constant. The following three

types of costs have been identified, namely coordination cost, agency cost and transaction cost, which will affect an MNE's performance negatively, the more culturally distant host-markets are where subsidiaries are located (Hutzschenreuter & Voll, 2008).

When there are large cultural differences between home-country and host-country: "*structural preferences introduce a potential for inhibited integration, lower managerial commitment among subsidiary employees, and less resource sharing between a parent and its acquired subsidiary.*" (Brock, 2005: 273).

Organizational climate

Researchers use various approaches to create organizational climate models and appendant dimensions or attempts to build on existing models (e.g. Moran & Volkwein, 1992). Apart from an inexistant concerted theoretical construct

for defining the dimensions, a further shortcoming in the research of organizational climate is that the individual dimensions, even if they occur identically in different models, are not described and implemented in the same way (Patterson, West, Shackleton, Dawson, Lawthom, Maitlis, Robinson & Wallace, 2005).

Patterson *et al.* (2005) set up a model taking into account the most frequently used and defined dimensions from researchers between the years 1960 and 2000, as well as addressing the previously explained problematics. Furthermore, Patterson *et al.* (2005) compiled the collected data using four approaches, to build an extensive model, taking research regarding organizational values and effectiveness into account. On this basis, Patterson *et al.* (2005) built the Organizational Climate Measure Model (OCM) which consists of 17 scales, assorted according to the four approaches (see table 2).

Table 2 The OCM-Model (Patterson et al., 2005)

1. Human Relations Approach	<ul style="list-style-type: none">• Autonomy• Integration• Involvement• Supervisory• Support Training• Welfare
2. Internal Process Approach	<ul style="list-style-type: none">• Formalization• Tradition
3. Open Systems Approach	<ul style="list-style-type: none">• Innovation & Flexibility• Outward Focus• Reflexivity
4. Rational Goal Approach	<ul style="list-style-type: none">• Clarity of Organizational Goals• Efficiency• Effort• Performance Feedback• Pressure to Produce• Quality

The effects of organizational climate on job satisfaction

Numerous researches conclude that a more favourable organizational climate will lead to a higher job satisfaction (e.g. Yi-Jen, 2007). This on account of the fact that providing a more desirable work environment will result in a higher job satisfaction (Metle, 2001). Similar notions have been found by Jing, Avery and Bernsteiner (2011) and Fu and Deshpande (2014) that a caring climate had a significant direct impact on job satisfaction, but concluding even further that a caring climate also significantly affected job performance positively. In a cross-industrial study conducted by Rahimić (2013) on the effect of organizational climate on job satisfaction, it was concluded that 86.6%

of changes in job satisfaction were caused by changes in organizational climate dimensions.

Job satisfaction and its relationship to firm performance

Job Satisfaction will result on account of positive subjective perceptions of employees towards their firm, their co-workers and the job itself (Sypniewska, 2013). Yang and Hwang (2014) conclude that job satisfaction is caused by an individual's psychological satisfaction due to factors such as the job itself, job challenges, promotions, benefits and fairness.

Jones *et al.* (2009) found according to their research that job satisfaction is

significantly positively associated with job performance. According to Yang & Hwang (2014) job performance can be defined as whether the job outcomes of employees match the companies job expectations. This may be for example in terms of efficiency and effectiveness or in terms of collaboration inbetween employees (Yang & Hwang, 2014).

Similiarly to Jones *et al.* (2009), Farooqui and Nagendra (2014) state that there is a positive relationship between job satisfaction and job performance as well as further concluding that job performance is an essential factor to determine firm performance. Therefore current research implies that job satisfaction has a significant positive effect on job performance and therefore also on firm performance.

A multi-facet approach to job satisfaction was developed by Antoncic and Antoncic (2011). The framework investigated the relationships between job satisfaction, entrepreneurship and firm growth. Thereby they compiled 27 items by adapting questions on the basis of a wide range of previous research regarding factors influencing job satisfaction (e.g. Porter, Lyman & Lawler, 1968; Hackman & Oldham, 1975). Antoncic and Antoncic (2011) structured these items on the following dimensions of employee satisfaction:

- General satisfaction
- Employee relationships
- Remuneration, benefits and organizational culture
- Employee loyalty

Conceptual framework

This study is designed to investigate the following relationships. How does the organizational climate of firms, determined by an organizational climate model of Patterson *et al.* (2005), which are exposed to high cultural difference versus firms, which are exposed to low cultural difference, defined by two of Hofstede's cultural dimensions (2014), relate to employee satisfaction, determined by a multi-facet job satisfaction questionnaire by Antoncic and Antoncic (2011) ?

Selection of the independent variables: The human relations approach of the OCM- model by Patterson *et al.* (2005)

The organizational climate measurement in this study will utilize one of the four approaches of the OCM-model (Patterson *et al.*, 2005), namely the „Human Relations Approach“. This due to the assumption, that a great deal cultural interaction and therefore effect of cultural difference within a firm takes place, when employees interact.

The human relations model comprises according to Patterson *et al.* (2005, 385): *“norms and values associated with belonging, trust, and cohesion, achieved through means such as training and human resource development. Coordination and control are accomplished through empowerment and participation, and interpersonal*

relations are supportive, cooperative, and trusting in nature."

The corresponding 6 dimensions of the human relations model, is defined by Patterson *et al.* (2005: 386) as the following:

- *Autonomy—designing jobs in ways which give employees wide scope to enact work*
- *Integration—the extent of interdepartmental trust and cooperation*

Involvement, consisting of:

- *participation—employees have considerable influence over decision-making*
- *communication—the free sharing of information throughout the organization*
- *Emphasis on training—a concern with developing employee skills*
- *Supervisory support—the extent to which employees experience support and understanding from their immediate supervisor*
- *Employee welfare—the extent to which the organization values and cares for employees*

Selection of the dependent variables: Job satisfaction questionnaire by Antoncic & Antoncic (2011)

The 4 dimensions can be defined according to Antoncic and Antoncic (2011) as the following:

General satisfaction: How happy are employees with working hours, the conditions of work and the reputation of their job?

Employee relationships: How are the relationships of employees with co-workers?

Remuneration, benefits and organizational culture:

- How high is the salary?
- Are there remunerations in the form of benefits and praise?
- Are there promotions?
- How strong is job stability?
- How is the organizational climate and organizational culture?

Employee loyalty:

- Do the employees feel loyal towards their company?
- Do employees talk about their company in a positive way?

Overview of the conceptual framework

Case selection:

Firm exposed to high cultural differences vs. firm exposed to low cultural difference, defined by two of Hofstede's (2014) cultural dimensions:

1. Individualism
2. Power distance

**Independent variable :**

The Organizational Climate within the two firms, determined by the "Human Relations Approach" of the OCM-model (Patterson *et al.*, 2005) with following six dimensions:

1. Autonomy
2. Integration
3. Involvement
4. Supervisory
5. Support Training
6. Welfare

**Dependent variable:**

Employee satisfaction within the two firms determined by a multi-facet job satisfaction questionnaire (Antoncic & Antoncic, 2011) with following four dimensions:

1. General satisfaction
2. Employee relationships
3. Remuneration, benefits and organizational culture
4. Employee loyalty

Figure 1 Conceptual framework

Hypothesis

It is assumed that subsidiaries exposed to high cultural differences have different organizational climates than subsidiaries, which are exposed to low cultural difference. This assumption is made due to Hofstede (2014) stating that culture influences the state of mind of people and many of the dimensions of organizational climate are influenced by people.

H1: Large cultural differences (i.e. cultural diversity) between home-country of MNE and host country of the subsidiary (Thailand), measured by Hofstede (2014) cultural dimensions "Power distance" and „Individualism", will result in a different organizational climate within the subsidiary, than the organizational climate of a subsidiary, operating in the same market, which is exposed to low cultural difference.

Moreover, it is assumed according to the literature review, that organizational climate has a (positive) relationship with job satisfaction (e.g. Yi-Yen, 2007).

H2: Large cultural differences (i.e. cultural diversity) between home-country of MNE and host country of the subsidiary (Thailand), measured by Hofstede (2014) cultural dimensions "Power distance" and „Individualism", will result in different levels of job satisfaction of employees working for the subsidiary due to its positive relationship to organizational climate, than the job

satisfaction levels of employees in a subsidiary, operating in the same market, which is exposed to low cultural difference.

According to Hofstede's (1980) assumption that a large cultural distance between individuals, groups and organizations implies that there will be difficulties, costs and risks involved. Based on this, as well as the large number of negative influences of cultural differences found by previous researchers, hypothesis H3 and H4 are formulated.

H3: Large cultural differences between home-country of MNE and host country of the subsidiary (Thailand), measured by Hofstede (2014) cultural dimensions "Power distance" and „Individualism", will result in a less positive perceived organizational climate within the subsidiary, than the organizational climate of a subsidiary operating in the same market, which is exposed to low cultural difference.

H4: Large cultural differences between home-country of MNE and host country of the subsidiary (Thailand), measured by Hofstede (2014) cultural dimensions "Power distance" and „Individualism", will result in a lower job satisfaction of the subsidiary, than the job satisfaction of the subsidiary operating in the same market, which is exposed to low cultural difference.

Methodology

Research design and sampling strategy

The methodological approach combines a case selection and the utilization of questionnaires. The first step is thus selecting two companies to enable a comparison. The second step is gathering data of the employees for the independent and dependent variables, thus organizational climate and job satisfaction, by using questionnaires.

To fulfill the research objectives, one subsidiary with high and one with low cultural difference to Thailand, defined by Hofstede's (2014) dimensions of "Individualism" and "Power Distance". To not just define cultural difference according to cultural indications of Hofstede's dimensions, this study applies

additional criteria to define cultural difference more distinctively:

Low cultural difference:

- Same cultural indications of power distance and individualism dimension
- Not more than 5% difference in points per scale

High cultural difference:

- Opposite cultural indication of power distance and individualism dimension
- More than 25% difference per scale

Two subsidiaries were chosen, which wish to remain anonymous and are both operating in the service sector in Thailand, featuring following firm characteristics (see table 3). Both companies operate in the consulting segment of the service sector and have a moderate length of operation in Thailand.

Table 3 Sample company characteristics

Company: Origin:	A (Low cultural difference)		B (High cultural difference)	
	South Korea		United Kingdom	
	PDI: 60		PDI: 35	
	IDV: 18		IDV: 89	
Nr. of total employees:	74		87	
Nr. of Thai employees:	50		64	
Nr. of foreign employees	24		23	

Furthermore, all 24 employees of company A originate of South Korea and

all 23 foreign employees of company B originate from the United Kingdom.

Data collection

A 5-point Likert scale is used in combination with the organizational climate as well as the job satisfaction questionnaire (1 point standing for "Strongly disagree" and 5 points standing for "Strongly agree"). Furthermore, the link to the questionnaires are sent to the employees by e-mail in English as well as translated into Thai or South Korean respectively, to ensure that the questions are fully understood by all the respondents. All employees are informed that the survey is anonymous.

The scoring is interpreted as the following for each dimension. A maximum score of 5 Points for the 6 dimensions of organizational climate, composed of a chosen 21 items/questions, indicates:

- Autonomy: High autonomy of the employees
- Integration: High integration of the employees
- Involvement: High involvement of the employees
- Support: High support of the employees
- Training: High amount and encouragement of training for the employees
- Welfare: High welfare towards employees

A maximum score of 5 Points for the 4 dimensions of job satisfaction, composed of a chosen 26 items/questions, indicates:

- General satisfaction: High general satisfaction
- Employee relationships: Good employee relationships
- Remuneration: High remuneration

- Employee loyalty: High loyalty of employees towards their firm

Whereas the value of 1 means the opposite indication, thus instead of high it is perceived as low or bad respectively.

Data analysis

In a first step, the means of all respondents are calculated to determine how the organizational climate dimensions and the job satisfaction dimensions are perceived by the employees of both firms, thus examining the results by utilizing descriptive analysis. Furthermore, a one-way analysis of variance (ANOVA) is going to determine whether the mean values of organizational climate and job satisfaction are significantly different between the two samples. ANOVA is suitable since socio-demographic factors are also taken into account. Then, to explain the relationship between cultural differences and performance, correlation coefficient analysis is used to statistically measure the covariance and thus investigate if there is a relationship of organizational climate dimensions and job satisfaction dimensions.

Results

Following data was compiled of questionnaires from 74 of 74 employees of the South Korean Firm and 85 of 87 employees of the UK firm. Of the 74 South Korean employees, 50 people have Thai nationality and 24 have South Korean nationality. Of the 85 employees of the UK firm, 63 people have Thai nationality and 22 have UK nationality.

Descriptive statistics

Table 4 shows the means for each of the 6 dimensions of organizational climate.

These were all rated higher by the employees of the South Korean subsidiary than of the employees of the UK subsidiary.

Table 4 Mean values for organizational climate dimensions

	South Korean subsidiary	UK subsidiary
Autonomy	3.87	2.88
Integration	3.91	3.11
Involvement	3.88	2.88
Support	3.90	3.21
Training	3.83	3.03
Welfare	3.83	3.03
Mean of organizational climate dimensions	3.87	3.03

Table 5 shows the rounded means for each of the 4 dimension of job satisfaction. Again, these are all rated

higher by the employees of the South Korean subsidiary than of the employees of the UK subsidiary.

Table 5 Mean values for job satisfaction dimensions

	South Korean subsidiary	UK subsidiary
General	3.95	3.13
Relationships	3.92	3.35
Remuneration	3.95	3.23
Loyalty	3.82	3.02
Mean of job satisfaction dimensions	3.91	3.18

ANOVA

The one-way ANOVA for both the items of organisational climate and job

satisfaction items showed that the samples were significantly different (Sig. < 0.005) in both cases, with the exception of two items.

Correlation analysis

Tables 6 and 7 show the correlation of the means of organizational climate dimension with the means of job

satisfaction dimensions for the employees of the South Korean subsidiary and the subsidiary from the UK.

Table 6 Correlation matrix for organizational climate dimensions with mean job satisfaction for South Korean subsidiary

	Autonomy	Integration	Involvement	Support	Training	Welfare	Job Satisfaction
Autonomy	1						
Integration		1					
Involvement			1				
Support				1			
Training					1		
Welfare						1	
Job Satisfaction	0.049	0.386**	0.356**	0.132	0.085	0.526**	1

** = Correlation is significant at 0.01 level in a 2-tailed test

Table 7 Correlation matrix for organizational climate dimensions with mean job satisfaction for UK subsidiary

	Autonomy	Integration	Involvement	Support	Training	Welfare	Job Satisfaction
Autonomy	1						
Integration		1					
Involvement			1				
Support				1			
Training					1		
Welfare						1	
Job Satisfaction	-0.132	0.364**	0.143	0.142	-0.200	0.352**	1

** = Correlation is significant at 0.01 level in a 2-tailed test

Certain individual items of organizational climate correlated notably stronger than others with the individual items of job satisfaction, as showed consequently.

In the South Korean subsidiary these were:

- Sharing information widely with employees
- Involving employees in decision making
- Avoiding communication breakdowns
- Looking after the employees

- Treating employees fairly

In the UK subsidiary these were:

- Sharing information widely with employees
- Collaboration between departments
- Respecting employees
- Showing interest in employees
- Treating employees fairly

Hypothesis testing

All the mean values of all the single dimensions of organizational climate by the employees of the South Korean subsidiary were perceived as higher than the ones of the employees of the UK subsidiary. Therefore, it can be said that there were reasonable differences with a mean value of 3.87 for the South Korean firm and 3.03 for the UK subsidiary.

Thus, H1 can be accepted.

All the mean values of all the single dimensions of job satisfaction by the employees of the South Korean subsidiary were perceived as higher than the ones of the employees of the UK subsidiary. Therefore the cultural difference did result in different levels of job satisfaction. Also, there was a positive relationship between organizational climate and job satisfaction, since organizational climate as well as job satisfaction was perceived higher by the employees of the South Korean subsidiary than by the employees of the UK subsidiary.

Thus, H2 can be accepted.

All the mean values of all the single dimensions of organizational climate by

the employees of the UK subsidiary (exposed to high cultural difference) were perceived as lower than the ones of the employees of the South Korean subsidiary (exposed to low cultural difference). The mean of all dimensions combined was with a value of 3.87 of the South Korean subsidiary considerably higher than of the UK subsidiary with a value of 3.03.

Thus, H3 can be accepted.

All the mean values of all the single dimensions of job satisfaction by the employees of the UK subsidiary (exposed to high cultural difference) were perceived as lower than the ones of the employees of the South Korean subsidiary (exposed to low cultural difference). The mean of all dimensions combined was with a value of 3.91 of the South Korean subsidiary considerably higher than of the UK subsidiary with a value of 3.18.

Thus, H4 can be accepted.

Limitations

The main limitations of this research are the sample size of employees and of considered companies as well as number of involved cultures. Since there is no universally agreed upon definition as well as dimensions of culture, and culture being complex and multifaceted, it makes this topic of research challenging. Although this research chooses a prominent example of Hofstede (2014) and limiting the 6 dimensions to only 2, since these dimensions are part of various other models, there is still no guarantee

that these two dimensions are truly defining dimensions of culture.

Furthermore, even though the chosen models and questionnaires regarding organizational climate and job satisfaction were proven to be reliable, there are many other models, which approach organizational climate and job satisfaction in differing ways. Therefore it is not certain that the chosen models for this research are the most appropriate or comprehensive.

Moreover, this study focused on elements within a firm, namely organizational climate and job satisfaction, which is influenced by culture, disregarding interactions between a firm and external parties which have different cultures, such as the relationship to local suppliers or customers for example. However, these as well as other internal factors which were not included in this research, may affect a firm and its organizational climate and job satisfaction as well.

Conclusion

This research could prove that the organizational climate dimensions of "Integration" and "Welfare" in both subsidiaries did correlate significantly with job satisfaction dimensions. In the South Korean subsidiary, the organizational climate dimension "Involvement" in addition did also correlate significantly with the means of the job satisfaction dimensions.

Furthermore, there were certain items, which stood out of these organizational

climate dimensions "Integration", "Involvement" and "Welfare", since the number of significantly correlating job satisfaction items was much higher, than in other dimensions. Two of those organizational climate items, which were significantly correlating in both subsidiaries, were "Information", thus widely sharing information among employees and "Fairness", thus treating employees fairly.

Moreover, it seems that the organizational climate of subsidiaries is affected by the interactions of employees with different culture. The dimensions of the "Human Relations Approach" of organizational climate were all perceived higher among employees with less cultural difference. Also, the utilized job satisfaction dimensions in this research, were all perceived higher among employees with less cultural difference.

Thus, these results are in line with the research that suggests that large cultural difference will affect subsidiary performance negatively (e.g. Kogut & Singh, 1988; Li & Guisinger, 1992; Mjoen & Tallmann, 1997). Communication, as element of the organizational climate dimension of integration, was perceived as lower in the subsidiary exposed to large cultural difference and is therefore in agreement with the research findings of Reus and Lamont (2009), which stated that cultural distance will impede communication. Furthermore, this is also conform with Brock's (2005) findings that large cultural differences between home and host-country of a company and it's

subsidiary can inhibit integration.

Also, Ahern's (2012) findings could be partially confirmed, namely that a higher complexity in teamwork and coordination due to cultural differences occur, since this is again in line with the findings that the organizational climate dimensions of integration and involvement were perceived lower by the subsidiary exposed to high cultural differences. The comparison and conformity to Ahern's (2012) results are meaningful, since the comparison between individualistic and collectivistic employees was carried out in a similar manner as in this research design. Brock (2005) states that cultural differences may also cause lower managerial commitment, which is related to the organizational climate dimension of supervisory support, which was according to the findings of this study the case.

Thus, due to the results of this research, while considering the limitations of this study, it can be said that for subsidiaries, which operate in foreign markets:

- Organizational climate is influenced by cultural difference to some extent.
- Organizational climate influences job satisfaction to some extent.
- High cultural difference results in lower perceived organizational climate dimensions of autonomy, involvement, integration, supervisory support, training and welfare.
- High cultural difference lowers job satisfaction to some extent.

Hence, in combination with the secondary research findings, it can be

said that cultural difference influences organizational climate, which relates to job satisfaction, which influences the performance of a firm. In the case of this research, high cultural difference between home country of MNE and host country of subsidiary affected job satisfaction negatively, thus it is assumed that it will also affect overall performance of a company negatively.

Implications for business

According to this research, firms should take cultural differences among employees into account, since these differences affect organizational climate and job satisfaction negatively. Firms employing people with different cultures, especially MNEs operating in foreign markets, should seek to improve organizational climate, due to its positive relationship to job satisfaction and the positive relationship between job satisfaction and firm performance. Consequently, they should in general also seek to improve job satisfaction of its employees. According to this research, this should be done especially for the organizational climate dimensions: "Integration", "Involvement" and "Welfare".

Further research recommendations

The relationships between cultural difference and organizational climate as well as job satisfaction need to be examined on a larger scale research to gain more significant data, meaning a

higher quantity of companies, employees and cultures. Future research should seek to apply different models of culture since culture is very complex, as well as dimensions, not just the dimensions of "Power Distance" and "Individualism". Furthermore, research should not only focus on intra-firm processes, such as organizational climate, but also on the external relationships of firms operating in foreign countries, which may affect them and their performance. To support firms and enhance their performance,

research should find efficient methods on how to influence organizational climate, since it has a relationship to job satisfaction and job satisfaction influences overall firm performance. Moreover, qualitative measures of employee perceptions may allow further insight in the relationship of organizational climate and job satisfaction, especially in seeking ways to improve organizational climate and job satisfaction.

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AN INVESTIGATION OF FACTORS INFLUENCING MICROBLOGGING ACCOUNTS ACTIVITY EFFECTIVENESS : A CASE OF CHINA

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Abstract

Objective - The objective of this study was to understand the factors influencing microblogging accounts activity effectiveness and to find out the factors that have more strong effect on intention to forward.

Methodology - A quantitative study was adopted for collecting data. Four hundred questionnaires are distributed in Guangzhou, China. The respondents are Chinese users of Weibo service. T-test, F-test, Crosstab analysis and multiple regression are used for analyzing data.

Finding - This study uses intention to forward as a measure of microblogging account's effectiveness. The result shows that, on one hand, people in different demographic groups (gender, age, education and region) have different perception levels toward content, timing, interaction and intention to forward. On the other hand, content, timing and interaction have effect on intention to forward. Moreover, among four dimensions of content, usefulness has the strongest impact on intention to forward.

Practical implications - As suggested in this studies enterprises need to make a plan on official accounts' daily operation, try to find out the optimal content, timing and interaction tools to attract the attention of followers. Enterprises also need to change their plans based on the follower's group changing preference, to be the first to grasp the opportunity.

Keywords:

Microblogging, Intention to forward, Activity effectiveness, Weibo

Introduction

Nowadays, microblogging site becomes an important tool for communication. In people's daily life, with the developing of network technology, microblogging become one part of human's life. Using Twitter as a example, at the end of 2014, Twitter got 288 million monthly active users. There are more than 500 million Tweets be sent every day. More than 90% users are following brand's account, and 33% of followers share brand or product to others (Twitter Inc., 2015). On business, many researches find that enterprises can get benefit by using microblog. Since it can aggregate a large number of consumer, and can have a direct return in increased user engagement (Strauss & Frost, 2009). Microblog can also help organization increased traffic, increased brand awareness, increased sales, and reduce cost (Weber, 2009).

A large number of enterprises begin to realize that using microblog to build brand and promo their self is very important. But in fact, by doing research witch related to eWOM (electronic Word of Mouth), Jansen et al. (2012) had analyzed more than 150,000 microblog posts, and found that some enterprises have no clear idea about microblog managing. In China, Xing (2013) had done the research about enterprise microblog marketing performance, and found that most of enterprises don't understand how to increase the influence power of their microblogging accounts.

Thus, for enterprise and organization who are using or want to use microblog as a platform to connect with consumer, finding out the strategy to increase the

intention to forward on microblog is very necessary.

Literature review

Content

Kaplan & Haenlein (2011) found that different characteristics of content can be combined in one post, this way can make micropost more vivid. Brookes (2010) also suggested enterprise try to use different characteristics such as link, picture, video and text or question to attract the attention of follower. De Vries et al. (2012) had classified content into 3 vividness levels. Thereinto, pictorial is low level, event is medium level and video belong to high level.

By exploring how social media help marketer success, Lewis (2010) suggested that microblog manager need to post something of value to those who visit it. Such as newsletters, hosting discussions that provide links to articles, videos or writing tips relevant to your industry. Zhang (2012) found that post some topics which people needed can get more forwards and more comments from the followers.

The number of characters in one post is more better or fewer better always have different opinions. Duffy (2013) suggested that fewer better. By interviewing a lot of successful marketers, she recommended that enterprise's microblog need to be short but like a memorable sound. But by analyzing the AISAS Model, Jin et al. (2010) found that there is no relationship between length and the number of forwarding. On the contrary, his research team recommended microblog manager need to make the most of 140 characters and explain the content clearly.

Nowadays, the discussions which centered around the length of micropost have no identical conclusion.

Timing

Many researchers take a conservative view of timing. On one hand, they believe that being active on posting can lead to a positive impact of microblog forwarding number. On the other hand, they also believe that posting too frequently might be terrible. But how often will be terrible is the question that researchers always argue.

Dahlén et al., (2003) found that there is a positive correlation between brand attitude and the time which spent on a web site. But other researchers such like Gerber (2014) and Rotolo (2010) suggested that don't post micropost too often or frequently, since it might become noise to the followers. By researching more than 500,000 tweets and wasting more than 15 mouths, a team at Georgia found that posting 8 posts per hour is optimum (Zetlin, 2013).

Interaction

Duffy (2013) found that for the enterprise, keeping interact with follower is critical. Because of online service is absolutely how people judge brands and businesses, and consumer are enjoy the feeling of interaction. But whatever, Boyd et al. (2011) introduced that for different microblogging sites, the basic interaction function are similar, which including "like", "forward" and "comment".

In the research which study about the relationship between interactivity and the number of follower click "like" , De

Vries et al. (2012) classified the interactivity evaluate measurement to three levels, including: (1) Voting (manager holding a vote, let flowers to vote) is low level; (2) Calling to act (e.g., commenting follower, forwarding follower's comment), Contesting (brand fans are requested to do something, like forwarding the micropost and win prizes) are medium level; (3) asking question in the post, and quiz (similar to question, but now brand fans can win prizes) are high level. The results show that except voting and calling to act, other interactivity posts are significant and positive to the number of like.

Intention to forward

Researchers always like using influence power to measure the effectiveness of microblogging account. Cha et al. (2010) had found that the number of forwarding has stronger impact on influence power of microblogging account. Same with Cha et al., by doing the research of social media and business, Narayanan et al. (2012) found that on microblogging sites followers are passive. But influence power is something that enterprises can overcome the passivity of users in order to propagate the content. That mean if account manager cannot find of the way to increase the intention to forward, the influence power will be low.

Conceptual framework and hypothesis

By doing the literature review, the author found that on microblogging site, a microblogging accounts is effectiveness or not is dependent on intention to forward (share/retweet the information on microblog).

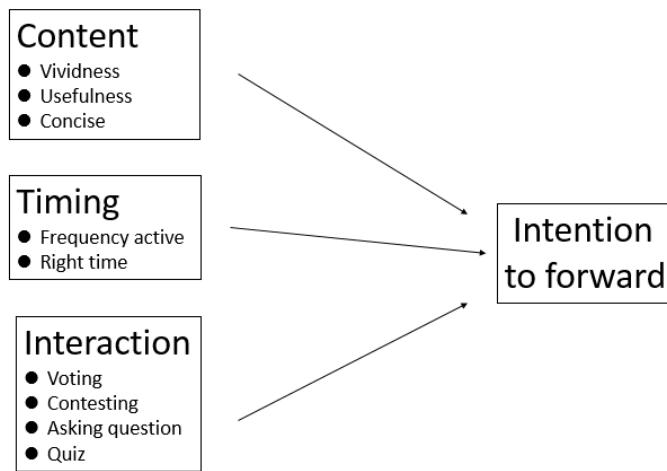


Figure 1 The framework of the research

And the forward intention is based on the factors which including content, timing and interaction. Hence, the hypotheses of this study are put forth as follows:

- H1.** Content of the micropost has an effect on intention to forward.
- H2.** Timing of post has an effect on intention to forward.
- H3.** Interaction has an effect on intention to forward.

Methodology

Sampling strategy and research instrument

In July 2015, author spend 2 weeks and used questionnaire as a tool to collect the data from Chinese Weibo user. 400 valid questionnaires were collected in Guangzhou city, China. The questionnaire had been divided into 5 sections, asking the question based on each factors of framework (content, timing, interaction, and intention to forward) and the basic information of interviewee. The structure of questionnaire are as follows:

Table 1 Questionnaire structure

	Factor	Type
Section 1	Basic information	Categorical
Section 2	Content	Continuous
Section 3	Timing	Categorical
Section 4	Interaction	Continuous
Section 5	Intention to forward	Continuous

Data analysis

Based on the questionnaire design, for exploring the relationship between “content”, “interaction” and “intention to forward”, the author used multiple regression method to do the analysis. And for exploring the relationship between “timing” and “intention to forward”, the author used F- test method to do the analysis.

Other than hypothesis testing, In order to know people in different gender, age, education and region have different perception on content, timing, interaction and intention to forward or not, the author also done the T-test and Crosstab analysis between demographic category

and the 4 variables in the research. Since some of items which relative to demographic have more than 3 choices in questionnaire, for easy to test, the author had done group control to each of item, to make respondents in different demographic items be divided into only 2 groups.

Data analysis and results

Reliability analysis

Author used Cronbach's Alpha (α) to estimate the reliability of data in research.

Table 2 The reliability of variables

	Variables	N of item	N	Cronbach's Alpha (α)
Content	Vividness	6	400	.724
	Usefulness	4	400	.776
	Concise	3	400	.862
Interaction		6	400	.831
Intention to forward		5	400	.798

Result in **Table 2** had shown that, Cronbach's Alpha of concise ($\alpha=.862$) and interaction ($\alpha=.831$) were higher than 0.80, suggesting that these two items had relatively high internal consistency. At

the same time, Cronbach's Alpha of intention to forward ($\alpha=.798$), usefulness ($\alpha=.776$) and vividness ($\alpha=.724$) were between 0.7 and 0.8, suggesting the variables are quit bit reliable.

Descriptive analysis

Table 3 Demographic information - Basic information

Basic Classification			Group Control		
Variable	Frequency (N=400)	Percentage	Variable	Frequency (N=400)	Percentage
Gender					
Male	193	48.25%	Male	193	48.25%
Female	207	51.75%	Female	207	51.75%
Age					
≤20	34	8.5%	Young	270	67.5%
21-30	236	59%			
31-40	105	26.25%			
41-50	17	4.25%			
>50	8	2%			
Education					
Secondary school	8	2%	Non-college or vocational	90	22.5%
High school	30	7.5%			
Vocational degree	52	13%			
Bachelor degree	256	64%			
Master degree or higher	54	13.5%			
Regional					
Central China and South China	132	33%	South	294	73.5%
East China	122	30.5%			
South Central China	40	10%			
Northwest China	16	4%			
Northeast China	23	5.75%			
North China	67	16.75%	North	106	26.5%

Gender, age, education and regional -
 Among a total of 400 respondents, there were 193 respondents were male (48.25%) and 207 were female (51.75%). The major age of respondents were between 21 and 40 years old, accounts for

about 85%. Major education level of respondents were bachelor degree (64%). 73.5% of respondents were from south China, and 26.5% were from north China.

Table 4 Variable description analysis - Timing

Option	Frequency (N=400)	Percent
How often do you check your Weibo?		
≥3 times a per day	75	18.8%
1- 2 times per day	262	65.5%
5-6 times per week	35	8.8%
3-4 times per week	10	2.5%
1-2 times per week or less	18	4.5%
You are more active on Weibo at (Active day)		
Business hours on weekday	79	19.8%
Non-business on weekday	261	65.3%
Weekends and holidays	60	15.0%
You are more active on Weibo at (Active time)		
9:30 AM – 12:00 AM	35	8.8%
3:30 PM – 5:30 PM	68	17.0%
08:30 PM – 11:30 PM	264	66.0%

Timing – Most or 65.5% of respondents were checked their Weibo 1- 2 times per day. The major or 65.3% respondents were more activated on Weibo at non-

business time on weekday. And most or 66.0% of respondents were activated on Weibo at 08:30 PM – 11:30 PM.

Table 5 Variable description analysis - Content, interaction and intention to forward

	N	Minimum	Maximum	Mean	Std. Deviation
Content	400	1	5	3.85	.483
Vividness	400	2	5	3.92	.501
Usefulness	400	2	5	3.94	.612
Concise	400	1	5	3.59	.975
Interaction	400	1	5	3.87	.681
Voting	400	1	5	3.48	.875
Contesting	400	1	5	3.83	1.020
Asking question	400	1	5	3.52	.923
Quiz	400	1	5	4.10	.979
Intention to forward	400	2	5	4.07	.617

Usefulness and intention to forward - By doing variable description analysis to content, interaction and intention to forward, the result had shown that the mean of content and interaction were 3.85 and 3.87, illustrates that respondents

keep a agree attitude to these two variables. And the mean of intention to forward was 4.07, also shown the respondents keep a agree attitude to this variables.

It is important to note that, vividness, concise and interaction had designed as gradient questions in the questionnaire. Thus, simply comparing with the mean of these 3 variables are not detailed and not

comprehensive. Hence, the author had done a further description analysis to each of item in the dimensions as follows:

Table 6 Descriptive Statistics – Vividness

	N	Minimum	Maximum	Mean	Std. Deviation
Pure text	400	1	5	3.03	.755
Picture	400	1	5	3.94	.669
Video	400	1	5	3.76	.837
Text and Picture	400	1	5	4.31	.704
Text and Video	400	1	5	4.10	.800
Text, Picture and Video	400	1	5	4.40	.852

Vividness - The result in **Table 6** had shown that, “pure text” (mean=3.03), “picture” (mean=3.94) and “video” (mean=3.76) got the mean between 3 and 4. But “text and picture” (mean=4.31), “text and video” (mean=4.10) and “text, picture and video” (mean=4.40) got the mean between 4 and 5. The result shows that for one single micropost, the element more complex will get more respondents’ attraction.

It should note that, “pure text” shown a low vividness in this research; “picture” and “video” are middle vividness; but “text and picture”, “text and video”, and

“text, picture and video” are high vividness.

Concise - The author had designed 3 microposts which had same general idea but different number of words in the questionnaire. There into, micropost A had 140 characters, B had 104 characters and C had 81 characters. **Table 7** had shown that all the micropost got the mean between 3 and 4. Reflecting that facing the descriptions, perception of the respondents are at agree level. But mean of each item was different, from high to low were C3 (mean=3.67), C2 (mean=3.60) and C1 (mean=3.48).

Table 7 Descriptive Statistics – Concise

	Item	N	Minimum	Maximum	Mean	Std. Deviation
C1	Compare with Micropost B, I feel Micropost A will make me feel better.	400	1	5	3.48	1.187
C2	Compare with Micropost C, I feel Micropost B will make me feel better.	400	1	5	3.60	1.045
C3	Compare with Micropost C, I feel Micropost A will make me feel better.	400	1	5	3.67	1.067

Interaction - Table 8 had shown that, for each of the interaction tool, the mean from high to low were quiz (mean=4.10), contesting (mean=3.83), asking question (mean=3.52) and voting (mean=3.48). Based on the size of mean, these 4

interaction tools can be divided into 3 different groups: Quiz is high attractive group; contesting is middle attractive group; asking question and voting are low attractive group.

Table 8 Descriptive Statistics – Interaction

	N	Minimum	Maximum	Mean	Std. Deviation
Voting	400	1	5	3.48	.875
Contesting	400	1	5	3.83	1.020
Asking question	400	1	5	3.52	.923
Quiz	400	1	5	4.10	.979

T-test and crosstab analysis

In order to know respondents in different gender, age, education and region have different perception levels to the variables or not. The author had done T-test and Crosstab analysis between demographic and variables before doing

hypothesis test. The results had shown that, towards interaction and intention to forward, there is a different perception of respondent in different demographic groups. Towards timing, there was a significant different between respondent in different age groups.

Table 9 T-test between “Gender” “Age” “Education” “Region” and “Interaction”

		Voting	Contesting	Asking question	Quiz
Gender	Male	3.61	4.00	3.55	4.31
	Female	3.36	3.67	3.48	3.90
	Sig.(2-tailed)	.004	.001	.410	.000
Age	Young	3.40	3.67	3.39	3.99
	M & O	3.65	4.15	3.77	4.32
	Sig.(2-tailed)	.004	.000	.000	.001
Education	N	3.63	3.96	3.54	4.23
	B	3.43	3.79	3.51	4.05
	Sig.(2-tailed)	.055	.142	.731	.128
Region	South	3.37	3.74	3.43	3.97
	North	3.77	4.07	3.75	4.44
	Sig.(2-tailed)	.000	.003	.002	.000

*M&O = Maturity or Old; N= Non-college or vocational; B = Bachelor degree or higher

For interaction, **Table 9** had shown that, respondent who were male (mean = 3.55), young (mean= 3.39), received non-college or vocational education (mean = 3.54) and who came from north of China (mean = 3.75) gave a low perception to “asking question”. Instead, respondents who were female (mean = 3.36), maturity or old (mean = 3.65), received bachelor or higher degree (mean = 3.43) and who came from south of China (mean = 3.37) gave a low perception to “voting”.

Among them, for “voting”, male were significant higher than female ($p = .004$), maturity or old respondents were significant higher than young respondents ($p= .004$), people from north were significant higher than who came from south ($p = .000$). For “asking question”, maturity and old were significant higher than young respondents ($p= .000$), people from north were significant higher than who came from south ($p = .000$).

Table 10 T-test between “Gender” “Age” “Education” “Region” and “Intention to forward”

	Gender		Age		Education		Region	
	Male	Female	Young	M & O	N	B	South	North
Mean	4.21	3.93	4.01	4.18	4.22	4.02	3.99	4.29
Sig. (2-tailed)		.000		.004		.016		.000

**M&O = Maturity or Old; N= Non-college or vocational; B = Bachelor degree or higher*

For intention to forward, **Table 10** had shown that, male (mean = 4.21), maturity or old people (mean = 4.18), people who received non-college or vocational degree (mean = 4.22) and people who came from north of China (mean = 4.29) gave a significant higher perception than female (mean = 3.93), young people (mean = 4.01), people who received bachelor or higher degree (mean = 4.02) and people who came from south (mean = 3.99).

For timing, especially for “active day”, the results has shown that there was a significant different between young respondents and maturity or old people.

Among them, young respondents were more active on business hours of weekday (Adjusted Residual=2.2) than maturity or old people (Adjusted Residual= -2.2).

Hypothesis test

H1. Content of the micropost has an effect on intention to forward.

Based on the questionnaire design, author had used multiple regression analysis method to test the relationship between content and intention to forward.

Table 11 Summary of Model Regression - Content towards intention to forward

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.593 ^a	.352	.350	.497	215.810	.000 ^b

a. Dependent Variable: Intention to forward

b. Predictors: (Constant), Content

The result in summary of model regression (see Table 11) shows that, content can explain 35.2 % the change of intention to forward. The significant level equal to .000 identifies that content has impact on intention to forward. Hence, H1 is accepted.

By establishing correlation matrix, can find that usefulness ($r=.610$, $p<0.01$), vividness ($r=.456$, $p<0.01$) and concise ($r=.294$, $p<0.01$) have positive correlation with intention to forward.

The finding from Coefficients shows that, vividness ($p=.000$) and usefulness ($p=.000$) have significant impact on intention to forward, but concise ($p=.177$) is not. Among them, usefulness ($\beta=.489$) has the strongest impact, follow by vividness ($\beta=.233$). In this study, assumed Y is intention to forward, X_1 is vividness, X_2 is usefulness, and X_3 is concise. The equation's coefficients in this model is as follows:

$$Y = 0.878 + 0.287X_1 + 0.492X_2 + 0.035X_3$$

H2. Timing of post has an effect on intention to forward.

Based on the questionnaire design, the author had used F- test to explore the relationship between timing and intention to forward. There are two dimensions in timing, including frequency active and right time. Thus, for analyzing timing, the study had divided into two parts.

1.Comparing the mean of frequency active and intention to forward :

In the question “how often do you check your Weibo” which asking about frequency active, the answer including 5 different groups: ≥ 3 times a per day, 1-2 times per day, 5-6 times per week, 3-4 times per week and 1-2 times per week or less.

Table 12 One way ANOVA of frequency active towards intention to forward

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.148	4	2.787	7.826	.000
Within Groups	140.682	395	.356		
Total	151.830	399			

Result in Table 12 shows that the p value which equal to .000 is less than 0.05, reveal that towards intention to forward,

there has a significant different between each group of people in frequency active.

Considering with the F value equal to 7.826 reveals that H2 is accepted.

By post hoc analysis, the study found that towards intention to forward, respondents who check Weibo ≥ 3 times per day has significant different with who check 5-6 times per week ($p < 0.05$) and who check 1-2 times per week or less ($p < 0.05$). In addition, intention to forward of the former one is higher than the last two.

Moreover, respondents who check Weibo 1-2 times per day has significant different with who check 5-6 times per week ($p < 0.00$) and who check 1-2 times per week or less ($p < 0.00$). In addition, intention to forward of the former one is also higher than the last two. The result shows that respondents who are active more often have higher mean than respondents who are less active.

2. Comparing the mean of right time and intention to forward :

There were two questions involved to right time in the questionnaire, asking the respondents are active on Weibo at what time. Differently, the first question used one week as a period (active day), but the second one was used one single day as a period (active week). Considering with the p value of active day equal to .954 and the the p value of active week equal to .550, both two value are higher than 0.05, pointed that there are no significant relationship between right time and intention to forward.

H3. Interaction has an effect on intention to forward.

Based on the questionnaire design, the author had used multiple regression analysis method to test the relationship between interaction and intention to forward.

Table 13 Summary of Model Regression of Interaction towards intention to forward

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.546 ^a	.298	.296	.518	168.924	.000 ^b

a. Dependent Variable: Intention to forward; b. Predictors: (Constant), Interaction

The R Square (=.298) in **Table 13** shows that interaction can explain 29.8% the change of intention to forward. According to F ratio is 168.924, and the result of significant at .000 level, indicate that interaction has influence on intention to forward

By establishing correlation matrix, the author found that voting, contesting, asking question and quiz have significant correlation with intention to forward. And the strongest one is quiz ($r=.505$,

$p < 0.01$), follow by voting ($r=.453$, $p < 0.01$) and contesting ($r=.439$, $p < 0.01$), and the last one is asking question ($r=.311$, $p < 0.01$).

The finding from Coefficients shows that, voting ($p=.000$), contesting ($p=.002$), and quiz ($p=.000$) have significant impact on intention to forward, but asking question ($p=.617$) has not. Among them, quiz ($\beta=.310$) has strongest impact, follow by voting ($\beta=.246$) and contesting ($\beta=.162$). In this

study, assumed that Y is intention to forward, X_1 is voting, X_2 is contesting, X_3 is asking question, and X_4 is quiz. Thus the equation's coefficients in this model is as follows:

$$Y = 2.351 + 0.173 X_1 + 0.098 X_2 + (-0.017) X_3 + 0.195 X_4$$

Conclusion

In this study, author used multiple regression and F-test as the analysis method to do the hypothesis testing. The result shows that, all the hypotheses are partially supported, including H1 (content of the micropost has an effect on intention to forward), H2 (timing of post has an effect on intention to forward) and H3 (interaction has an effect on intention to forward). Specifically, vividness, usefulness, voting, contesting and quiz have positive impact on intention to forward. Among them, usefulness has the strongest impact on intention to forward.

Into demographics, by doing T-test and Crosstab analysis, the study finds that: Firstly, male, maturity or old people and respondents who come from south of China have higher perception towards intention to forward; Secondly, different from maturity or old people, young people are more active on Weibo at business hour on weekday; Thirdly, female, maturity or old people, people with high education (bachelor degree and higher), people who come from north of China don't like enterprise use voting as an interaction tool. In opposite, male, young people, people who with non-college or vocational education, and people who come from south of China don't like enterprise use asking question as an interaction tool.

Discussion

The purpose of this study was focus on the factors influencing on intention to forward. The result shows that content, timing and interaction have effects on intention to forward.

According to hypothesis 1, the study found that a vividness and usefulness content can enhance the followers' intention to forward. This result go the same direction with Brookes (2010). And the result also same with Lewis (2010) and Zhang et al. (2012), they found that putting something of value can get more forward rate from the follower. But from the analyzing, the author found that there is no significant relationship between concise and intention to forward. Hence the result is different from the viewpoint of Duffy (2013) and Kirschner (2012), they suggested enterprise's microblog need to be concise, and a long post will disturb people's reading habits.

For hypothesis 2, the study found that for the follower who check Weibo more frequency will have a higher forward intention. This result is same with the research result of Dahlén et al., (2003) who pointed that there is a positive correlation between brand attitude and the time that spent on a web site. But at the same time, even Golder et al. (2007) found that followers are more activity on weekday and at evening. But the result in this study shows that there is no significant different between right time and intention to forward.

For hypothesis 3, on one hand, the result in this study is quite similar to the result of Wang (2009) who pointed that interact with follower can enhance the forwarding rate. On the other hand, the author found that for different interaction

tools, the attraction from high to low are “quiz”, “contesting”, “asking question” and “voting”. But De Vries et al. (2012) evaluated interactivity to three level, including “asking question” and “quiz” are high level, “contesting” is medium level, and “voting” is low level, which made the result of the author was not totally same with other researches.

Recommendations

There are some recommendations would like to suggest to the enterprise. The recommendations can help enterprises enhance the activity effectiveness of their official accounts’ daily operation. The recommendations are as follows.

First of all, using multimedia content to attract followers as much as possible. Result in the study shows that, for a micropost which combined with text, picture and video at one time can get a higher vividness than any other types of micropost. Thus, official accounts’ managers can adjust the combinations of the micropost to achieve enhance the intention to forward. But no matter what the combinations are, operators should know that the vividness of content from high to low are picture, video and pure text.

Secondly, adjust the type of content according to different demographic groups of followers. From the study, the author found that different groups of followers have different perceptions levels toward content. For an enterprise, assume that the majority followers are male or young people (age ≤ 30 years old), operators should reduce the use of pure text, since male or young people have low interesting in pure text than

female or maturity and old people (age ≥ 31 years old).

Thirdly, take full advantage of 140 characters in micropost, and explain the information clearly. Result in the study shows that there is no significant relationship between the length of micropost and the number of forwarding. Thus enterprises and the official accounts’ managers should makes the most of 140 characters to communicate with their followers.

Moreover, active frequently and interact with followers based on the posting plans. The result in the study shows that there is a positive correlation between frequency active and intention to forward. Event some researchers suggested that enterprise should post how many post in one day, but we believe that how frequency is vary with each individual. Hence for an enterprise, it is very important to set up at least one posting plan and adjust the plan in practical operation, finding out the optimal interacting and posting plan on daily operation.

Furthermore, active more at business hours on weekday if the main users of enterprises are young people. The result in the study shows that young people (age ≤ 30 years old) are more active at business hours on weekday than maturity and old people (age ≥ 31 years old). Hence it is a good time for enterprises grasp the opportunity to interact with their followers, since interaction will impact people judge brands and businesses of the enterprises.

Finally, choosing the suitable interaction tool to interact with followers. Result in this study shows that each of the interaction tool have different attraction

to the follower. In general, the attraction from high to low are quiz, contesting, asking question and voting. Thus enterprises should reduce to use voting as the interaction tool, but try to use quiz or contesting more to interact with consumers. But it is worth mentioning that, if the main followers of the enterprises are male, young people, non-college or vocational group people, and also people who come from south of China, the operator should reduce to use asking question as the interaction tool, since the attraction is lower than any other interaction tools for these groups of people. But quiz and contesting are suitable for all groups of followers.

Limitations and further research

The limitation of this study include research method, research gap and sample.

Firstly, there was only quantitative method used in the research, which made some valuable and interesting results came out but cannot explain in more detail. For example, the author found that respondents are more prefer enterprise use “quiz” as an interaction tool, but we don’t know why they are not interesting in “voting”.

Secondly, the scope of this study is based on Chinese microblogging sites (or

Weibo), but unfortunately there were small number of researchers doing the research based on this topic. Thus, most of references that be introduced in this study were based on Twitter or Facebook, which leading all the hypotheses in this study were not totally supported but partially supported. And also made some question can’t be answer in the study.

And finally, the author cannot say that the sample in this study can be a representative of China. Since the questionnaires were distribute at downtown of Guangzhou city, there are lots of big companies and universities gather here. On the one hand, it is not difficult to find that there are 77.5% of respondents were bachelor degree or higher, which made low educational background respondents were in the minority. On the other hand, Guangzhou is a city in south of China, which make the mainly or 73.5% of respondents were came from south of China, but only 26.5% of respondents were came from north.

In further research, researcher can think about to combine quantitative and qualitative method in the research, extend the scope to distribute questionnaires in more places in China, and introduce more new researches as the reference, to answer the question which has not been answered in this study.

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DETERMINANTS OF COMPLETION OF CHINESE OVERSEAS MERGERS AND ACQUISITIONS

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Abstract

With the fast development of economies, mergers and acquisitions became the new transaction form for Chinese enterprises to expand overseas. However, compared with the advanced countries, the completion rate of Chinese overseas M&A deals is low. The article intend to analyse the reason caused the low completion rate of Chinese overseas M&A deals. The article collected 494 M&A deals from Thomson Financial Merger and Acquisition Database between 2001-2012, and according to the empirical studies, the factors had influence on the completion of Chinese overseas M&A deals are from various levels. It can get the conclusion that two factors-- investment profile and military in politics have significant positive effect on the completion of M&A attempts.

Keywords:

determinants, completion, merger and acquisition

Introduction

Background of the research

With the fast development of market economies, many new corporation transaction forms are emerging in the economic development. At the end of 19 century, merger and acquisition (hereafter, M&A) as two new forms of corporation transaction are emerging and developing gradually. Compared to the advanced countries with the M&A trip beginning from 1880, Chinese enterprises overseas M&A trip was a late start which was beginning from 1980s.

At the beginning of overseas M&A, only Chinese state-owned enterprises with large financial resources enter the global M&A market. With the fast development of the economy, other sorts of enterprises get a great chance to expand overseas. Since the occurrence of 2008 financial crisis, some enterprises in developed countries facing the survival difficulty, this phenomenon gives Chinese enterprises a great opportunity to attain unprecedented development.

However, it can be said that Chinese overseas M&A results are not



satisfactory. Chinese enterprises suffered a great number of failure due to many different aspects. In the beginning, the acquiring enterprises are mostly state-owned enterprises (hereafter, SOEs) that surging in the M&A trip, and SOEs preferred to choose the natural resource industry as the main targeting. The behavior caused a lot of concerns from hosting country. Political security is a great concern in the M&A attempts, and institutional quality is the measurement of political security.

There is a misunderstanding of overseas M&A for Chinese enterprises. Acquiring enterprises always ignore the local investment environment. Many Chinese enterprises just follow the trends to expand overseas blindly, don't research and analyze enough information about the institutional distance, this phenomenon causes high uncertainty in the M&A deals.

Significance of the study

The article focuses on the determinants of completion of Chinese enterprises overseas M&A. The acquiring enterprises can benefit from such analysis. In the process of Chinese overseas M&A, acquiring enterprises may have various problems in the dealings. This study can provide a great guideline to complete the M&A deals.

Research objective

To investigate the determinants which affect the completion of overseas M&As for Chinese enterprises.

To provide suggestion on help to increase the completion percentage during the dealing period.

Research question

What are the factors which determine the completion of Chinese overseas M&A?

Expected benefits

From this research, the determinants of completion of Chinese enterprises overseas M&A will be found by empirical analysis. Chinese enterprises or organizations which intend to expand overseas can get the benefit from this paper.

This study provides a deep insight into the determinants of the completion of Chinese overseas M&A. Thus the acquiring enterprises can make a better understanding and take an appropriate decision based on the conclusion of this paper. The enterprises or organizations can get the guideline to increase the completion percentage during the dealing period.

Literature review

Li Yuan, Wang Wei and Miao Chen (2011) analysed the national risk assessment of China's overseas investment based on the data of ICRG. The authors combined four risk assessment authorities and appraisal procedures, and created a risk assessment mechanism for overseas investing countries. ICRG includes political risk index (PR), economic risk index (ER) and financial risk index (FR). The comprehensive risk index (CR)=0.5*(PR+ER+FR). The weight of PR is 50%, the weight of ER is 25%, the FR's weight is 25%. According to the data from the 140 countries in June, 2012, the article got the score of each country around the world. The conclusion is that the countries from Asia

and Euro have low risk, the percentage of advanced countries is 67% and the percentage of developing countries is 33%. The top risk countries are Ethiopia, Libya, Yemen, Guinea, Belarus, Congo, Niger etc. The article suggest that Chinese should evade these kinds of countries when invest overseas.

Nan Hu, Yun (Ivy) Zhang and Songtao Tan (2016) centered the two of determinants of Chinese enterprises overseas M&A which are definitely country specific key determinants, industry preference and currency appreciation. At the industry preference level, the researchers found that source-related enterprises prefer to choose the host country's natural resources to achieve the goals of national strategy, and would cause the special political treatments from the host countries. International, national source-related security is the first aim for each country, this industry preference would cause the host country to worry about the intentions of Chinese enterprises and the national interests. For the second sector currency appreciation, the article explored the appreciation of RMB (Chinese money) during such three decades. Since the reform of exchange rate system in 2005, the exchange rate of RMB was to cause a huge floating compared with the last decade. This article also finds that the appreciation of RMB has a great effect on national wealth including the short and long term. Furthermore, the appreciation of RMB also has a huge effect on the acquirers themselves, it can decrease the cost of capitals in home country.

Jianhong Zhang, Chaohong Zhou and Haico Ebbers (2011) explored the factors from the institutional perspective to

affect the completion of Chinese enterprises international acquisitions activities. The study focus on the institutional restrictions and institutional quality for the host countries, it indicates that when the acquisitions activity be regarded as a threat to host country, this kind of acquisitions will be canceled by the local government, the effect also for the related industry which affects the national security like source-related industry. From the perspective of the article, the institutional pressure made a great effect on the Chinese enterprises overseas acquisitions. The hypothesis was given that the host country's institutional quality has positive relationship with the completion of acquisition deal. The study quoted 1324 Chinese overseas M&A deals between 1982 and 2009 to study the above viewpoint. After completing the regression equation, the hypothesis can be fully confirmed, it can be said institutional quality has positive and significant influence in the completion of acquisition deals.

Md. Mahadi Hasan, Yusnidah Ibrahim and Md. Mohan Uddin (2016) explore the factors which have influences on the firm performance in the perspective of institutional distance. The article aims to identify the institutional gaps according to the previous study which highlight the ten related institutional distance factors in this article. This study focuses on the influence on the firm's performance of institutional distance factors which from the institutional-based view. There are two hypothesis from the aspects of institutional distance, the first one is formal institutional distance can give a positive influence on the performance of enterprises cross-border M&As, which including many aspects such as

administration, laws etc. The other one is informal institutional distance which including the knowledge, geographic makes a negative effect on the performance of enterprises cross-border M&As. Using the “CAGE” model (cultural, administrative, geographical and economic distance) which was created by North (1990) and based on the theory of institutional to analyze the distance between home and host countries. In addition to the above several aspects, the study add the infrastructure distance in the model. In the last, this article get the conclusions that the enterprises prefer to choose the better infrastructure in place to lower the cost of operation.

Isabel Feito-Ruiza, Ana I. Fernándezb and Susana Menéndez-Requejob (2014) aim to analyze the decision of acquiring attempts in different political and institutional environments. The focus of this study is the unlisted enterprises other than the listed enterprises in both US and Europe. From the perspective of researchers, they suppose Managerial Opportunism and Information Asymmetry as the main determinants of the acquiring attempts. Managerial Opportunism is estimated on the basic variables in the logit model: size of acquiring firm, cash inflow and outflow, market-to-book ratio and method of payment. For the information asymmetry, it is likely to measure like the size of enterprises and attribution of enterprises depending on the legal and institutional environment. The study searched the data announced by European Union (hereafter EU) during the certain period around from January 2002 to December 2007. After the analysis of above data using the logit model, the study get the conclusion that

managerial opportunism is a determinant of the acquisition of listed firms, occurring with greater probability in somewhere or countries where provide less protection to shareholder. Information asymmetry is also a relevant determinant that causes the acquisition of unlisted firms. As a country is less developed in capital market, the acquisition is more likely to happen.

Dechun Huang and Aiping Shi aim to analyze the restriction factors in the process of overseas M&A by Chinese enterprises. From the country-specific level, cultural integration and policy are the main restriction factors to complete the M&A attempts. Cultural integration is a very critical factor of completion between home culture and host culture. Due to Chinese enterprises are lacking of the sufficient knowledge of cultural background in the host countries, this phenomenon lead to a great number of M&A deals failure. Policy is another critical factor in the process of M&A attempts, the difference of political system between China and western enterprises leads to the misunderstanding in many aspects such as human rights. One example is Rio Tinto case rejection in Australia. From the industry-specific industry, human resource as one factor to measure the completion of M&A attempts. As we all know, professional ability has significance influence on the management of enterprises. Some managers have many experiences in basic overseas business transaction, but don't know the local language and some of them are unfamiliar with the local laws and rules. There is a failure example because of the communication problem between China and Korea. In the process of SAIC acquiring Ssangyong case, at first due to the language problem-

Chinese and Korean, the acquiring enterprise doesn't have the right senior manager to control the targeting enterprises, so SAIC retained the local management team to manage Ssangyong. In the limitation of cultural communication barrier of two enterprises, this M&A deals causes a great loss of acquiring enterprises around nearly \$0.5 billion. In response to the related factors regarding the policy, cultural integration and human resources, the study gives many recommendations. The culture integration is the most part of M&A integration, so the key point is improving the aware of communicating with local culture. Creating a new culture type is the solution of the overseas M&A to avoid the cultural conflicts and risks. Defuse the financial risk is the suggestion of solving the such problems, including get the full economic information about stock market, enterprises assets. The article also gives the four approaches to train a manager as to operate the overseas M&A deals. The human resources including local and global human resources are all can be used as the approaches to solve the problem.

Based on the international business strategy in the system view and organizational learning theory, Yan Da Ying (2011) discusses the determinants of success of Chinese enterprises overseas mergers and acquisitions. This paper empirically tests the overseas mergers and acquisitions sample initiated by Chinese enterprises, and finds that formal and informal institutional distance have a significant negative impact on Chinese enterprises overseas M&A success, furthermore, the previous success cases in M&A deals can improve the success rate in the subsequent M&A attempts. At the same time, the article

shows that the companies which have more experience in overseas M&A deals, it will causes higher success rate in the subsequent attempts. In addition, this paper also shows that acquirer is state-owned enterprises, listed companies and natural resources companies or not, and whether the acquirer hire professional consultants in M&A deals, and openness of host countries also affect the success or failure of overseas mergers and acquisitions. Based on the above conclusions, this paper gives some countermeasures and suggestions.

Kenneth Y. Hui (2009) uses the different perspective to study the effect of China's national security laws on domestic company's foreign mergers and acquisition. The article uses the comparative approach to study the similarities of national security laws between China and United Stated. The purpose of this article is comparing the national security laws between China and United Stated, because United Stated is regarded as a benchmark of prime free market. The focus of this paper is on the wholly owned companies which intend to purchase any company's a majority percentage of shares or assets. In the conclusion, national security laws of China don't have the difference greatly with the national security laws of United States. The procedure of decision making in China is the only protectionist feature which compared with the United State.

Conceptual framework

According to the previous literature, the article finds many factors to analyze the completion of Chinese overseas M&A. Institutional quality has significance influence, and 12 variables under International Country Risk Guide

(hereafter, ICRG) will be chose to measure. The paper gives such 12 hypotheses.

H1: the host country's government stability has positive effect on the likelihood of M&A attempts completion

H2: the host country's socioeconomic conditions has positive effect on the likelihood of M&A attempts completion

H3: the host country's corruption has positive effect on the likelihood of M&A attempts completion

H4: the host country's investment profile has positive effect on the likelihood of M&A attempts completion

H5: the host country's internal conflict has positive effect on the likelihood of M&A attempts completion

H6: the host country's external conflict has positive effect on the likelihood of M&A attempts completion

H7: the host country's religion in politics has positive effect on the likelihood of M&A attempts completion

H8: the host country's military in politics has positive effect on the likelihood of M&A attempts completion

H9: the host country's bureaucracy quality has positive effect on the likelihood of M&A attempts completion

H10: the host country's ethnic tensions has positive effect on the likelihood of M&A attempts completion

H11: the host country's democratic accountability has positive effect on the likelihood of M&A attempts completion

H12: the host country's law and order has positive effect on the likelihood of M&A attempts completion

Methodology

The paper investigates the determinants which have influence on the completion

of Chinese overseas M&A. The empirical study of this study mainly divides into three parts:

The first part implements statistical description. For the dummy variable, it aims to attain the percentage of completion in M&A. The second part calculates the correlation and according to the result, the paper also calculates variance inflation factor to measure more complex multicollinearity. The third part builds logistic regression model, and researcher tests the model using the data during 2001-2012 to get the final regression result.

Population and sample

The population of this research is involved in the process of M&A attempts.

The initial sample consists of 587 M&A deals. The collecting period is from January 2001 to December 2012 from Thomson Financial merger and acquisition (Thomson One Bank <http://banker.thomsonib.com/ta/>). The data set contains information from various sources around the world, such as national official websites, business newspapers etc. Thomson One Bank offers main information including status of deals, dates of announced and effective, the targeting and acquirer enterprises names, and also the characters of targets and acquirers, such as rank values of deals. In order to keep the accuracy of data, the research double checks the information with PricewaterhouseCoopers' Transaction Services Group. Due to some limitations, such as the acquiring enterprises must be listed on the Stock Exchange and the targeting countries lack of each score

under ICRG. The above restrictions led to the final usable sample of 494 cases.

Data collection

The observations in the model are unstructured due to the character of samples. Using undated data between 2001 and 2012 which is needed to observe the characteristics of values. The original sample is addressed above collects from data set and in order to

attain the final result, the original sample is computed by regression analysis through using the econometric program Eviews.

Independent variables and dependent variable

The 12 variables under ICRG measure the effect on M&A deals.

Table 1 The explanation of variables under ICRG

Measures	Explanation
Government stability	The measurement of government's ability to stay in office and declared programs, the sub-concepts involve (1) Government Unity (4 scores), (2) Legislative Strength (4 scores), (3) Popular Support (4 scores). The range of score is between 0 and 12.
Socioeconomic Conditions	The assessment of socioeconomic pressures at work that could constrain government action or fuel social dissatisfaction. The sub-concepts include (1) Unemployment (4 scores), (2) Consumer Confidence (4 scores), (3) Poverty (4 scores). The range of score is 0-12.
Corruption	The measurement of corruption within the political system. The range of score is 0-6.
Investment Profile	The measurement of other factors which are not covered by main political, economic concepts. The sub-concepts involve (1) Contract Viability/Expropriation (4 scores), (2) Profits Repatriation (4 scores), (3) Payment Delays (4 scores). The range of score is 0-12.
Internal Conflict	The measurement of political violence in the country and its impact on government. The sub-concepts involve (1) Civil War/Coup Threat (4 scores), (2) Terrorism/Political Violence (4 scores), (3) Civil Disorder (4 scores). The range of score is 0-12.
External Conflict	The measurement of risk in incumbent government from foreign action. The sub-concepts involves (1) War (4 scores), (2) Cross-border Conflict (4 scores), (3) Foreign Pressures (4 scores). The range of score is 0-12.
Religion in Politics	The measurement of the threat in religion. The range of score is 0-6.
Military in Politics	The measurement of the threat in military take-over. The range of score is 0-6.
Bureaucracy Quality	The measurement of institutional strength and quality of the bureaucracy. The range of score is 0-6.
Ethnic Tensions	The measurement of the degree of tension within a country attributable to racial, nationality, or language divisions. The range of score is 0-6.
Democratic Accountability	The measurement of responsive from government to its people. The range of score is 0-6.
Law and Order	It has two components. For law elements (3 scores), the strength and impartiality of the legal system are needed to consider. Order (3 scores) is the measurement of popular observance of the law.

The Logistic regression

Logistic regression approach is a statistic method that be used to predict the each predictor variable. In the logistic regression, there are two values to predict: probability (p) means 1 or 0. Same with the ordinary regression, the logistic regression also provides the measurement of partial contribution to variance of each independent variable which is written as coefficient 'b'.

The function of coefficient 'b' is that measure the contribution to variance of independent variable in the dependent variable, the result for the dependent variable can only take on the values: 0 or 1. In the article, the outcome of the regression is the prediction of Y value, and the outcome takes on the value 0 and 1.

Logit (p) means the log of the odds ratio or likelihood ratio that the dependent variable is 1. The logistic regression model is always expressed as follows:

$$\text{Logit}(p) = \ln(p/(1-p)) = \ln(p/(1-p)) \quad (1)$$

Where: \ln is the natural logarithm.

p means the probability of Y occurring. It ranges from 0 to 1.

$p/(1-p)$ means the “odds ratio”

$\ln [p/(1-p)]$ means the log process of odd ratio, this is the logit function

The form in the equation of logistic regression:

$$\text{Logit}(p(x)) = a + b_1 x_1 + b_2 x_2 + \dots \quad (2)$$

Where: a means the constant item's coefficient in the model

b_i means the independent variable i ' coefficient

x_i means the independent variable i

Empirical analyses and results

Descriptive statistics

Descriptive statistics is the description of the features in the process of information collections. The basic concepts of descriptive statistics is involving the degree of dispersion analysis, the central tendency in the data analysis and data distribution.

The first step in this chapter, the study intends to investigate the descriptive statistics in 494 observations to evaluate the performance of each variables, the trend and fluctuation of each variable are shown in the following table:

Table 2 Descriptive Statistics of each variable

Variable	Mean	Median	Maximum	Minimum	Std Dev	Skewness	Kurtosis	Observations
GS	7.8850	7.7300	11.2100	4.6700	1.5225	0.2702	2.5159	494
SC	7.9935	8.5000	11.0000	2.0000	1.8841	-1.4773	4.4543	494
Corruption	3.9067	4.0000	6.0000	1.0000	1.0381	-0.7141	2.4431	494
IP	10.6450	11.3150	19.0000	5.0800	1.6952	-0.8966	4.2393	494
IC	9.8610	10.0000	12.0000	5.5000	0.9883	-1.2426	5.3591	494
EC	9.8660	10.0000	12.0000	6.5000	1.1998	-0.8330	3.3500	494
RIP	5.1081	5.5000	6.0000	1.0000	1.1968	-1.9534	6.4923	494
MIP	4.9513	5.0000	6.0000	0.0000	1.1749	-1.1116	3.9447	494
BQ	3.4352	4.0000	4.0000	0.0000	0.8962	-1.3540	3.6577	494
ET	4.2519	4.0000	6.6000	1.0000	1.0893	-0.3370	2.6857	494
DA	5.1909	6.0000	7.0000	1.0000	1.3033	-1.6341	4.4758	494
LAO	4.7591	5.0000	6.0000	2.0000	0.9645	-1.3912	4.0993	494

The above data gives more detailed understanding of the data distribution through descriptive statistics result between 2001 and 2012 in 494 observations. The government stability's mean is 7.885 and standard deviation is 1.5225, the maximum and minimum of government stability are 11.21 and 4.67. For the socioeconomic conditions, the mean is 7.9935 and standard deviation is 1.8841, the highest is 11 and the lowest is 2. The average of both religion in politics and military in politics are 5.1081 and 4.9513, their standard deviation are 1.1968 and 1.1749, the maximum and minimum are 6 and 1, 6 and 0. For corruption, the mean is 3.9067, the highest is 6 and the lowest is 1, the standard deviation is 1.0381. The average of investment profile is 10.645 and its standard deviations is 1.6952, the highest values is 19 and the lowest is 5.08. For bureaucracy quality, the mean is 3.4352, the highest is 4 and the lowest is 0, the

standard deviation is 0.8962. The average of democratic accountability is 5.1909 and its standard deviations is 1.3033, the highest values is 7 and the lowest is 1. The average of ethic tensions is 4.2519 and its standard deviations is 1.0893, the highest values is 6.6 and the lowest is 1.

Multicollinearity test

Detecting multicollinearity using correlation method

In order to get the accurate parameter estimation and avoid the problem associated with the logit model, the correlations will be measured. Correlation test is very important for making sure whether there is multicollinearity between variables. In general, if correlation coefficient is lower than 0.8 that means there is no multicollinearity problem between variables.

Table 3 Correlations of the independent variables

	GS	SC	Corruption	IP	IC	EC	RIP	MIP	BQ	ET	DA	LAO
GS	1											
SC	0.0942	1										
Corruption	0.0749	0.708	1									
IP	0.2092	0.7453	0.6531	1								
IC	0.1827	0.5011	0.5148	0.5293	1							
EC	0.0608	-0.0742	0.1074	-0.1145	0.3506	1						
RIP	0.0457	0.4881	0.3492	0.4512	0.4392	-0.1533	1					
MIP	0.0082	0.5718	0.5578	0.4519	0.4831	0.1541	0.5685	1				
BQ	0.001	0.7749	0.7919	0.7445	0.5194	-0.1116	0.4755	0.5773	1			
ET	0.1196	0.3327	0.1328	0.4006	0.4532	-0.0732	0.4328	0.1469	0.4238	1		
DA	-0.3863	0.3584	0.4156	0.3062	0.1127	-0.1458	0.3232	0.3566	0.5027	-0.1597	1	
LAO	0.0564	0.7661	0.774	0.7198	0.551	-0.0383	0.5376	0.6782	0.8135	0.3463	0.4074	1

Note: GS= Government Stability, SC= Socioeconomic Conditions, IP= Investment Profile, IC= Internal Conflict, EC= External Conflict, RIP= Religion in Politics, MIP= Military in Politics, BQ= Bureaucracy Quality, ET= Ethnic Tensions, DA= Democratic Accountability, LAO= Law and Order, KOO= Kinds of Ownership

Table 3 presents the correlations result. The correlations between bureaucracy quality and law and order is 0.8135 (>0.8). It means these two variables have the multicollinearity problem. Therefore, the results need further test in variance inflation factors (VIF).

Detecting multicollinearity using variance inflation factors

The correlation between bureaucracy quality and law and order is more than

0.8. Therefore, the bureaucracy quality will be regarded as the dependent variable to calculate with other independent variables. R-squared for bureaucracy quality is equal 0.858249 which means the result in VIF is equal 3.79638 ($1/(1-0.858249^2)$). The 3.79638 is less than 10, it means the variable can be accepted. R-squared for law and order is equal 0.792458 which means the result in VIF is equal 2.6881 ($1/(1-0.792458^2)$). The 2.6881 is less than 10, it means the variable can be accepted.

Variables	VIF (Variance Inflation Factors)
bureaucracy quality	3.79638
law and order	2.6881

According to the results of Variance Inflation Factors above, the results show that both numbers are less than 10, it can say that these two independent variables don't need to be deleted in the original model.

Logistic regression result and interpretation

In this article, it employed logistic regression model to analyze the effect of various levels on the completion of Chinese enterprises overseas M&A attempts. After the data was tested by multicollinearity test etc, it can be used to run regression test.

Table 4 Logit model estimation result

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-1.531052	1.759769	-0.87003	0.3843
GS	0.175883	0.098531	1.785046	0.0743 *
SC	-0.011894	0.116759	-0.101871	0.9189
CORRUPTION	-0.477936	0.246916	-1.935624	0.0529 *
IP	0.303245	0.130992	2.314997	0.0206 **
IC	0.06794	0.191028	0.355653	0.7221
EC	-0.082135	0.138537	-0.592875	0.5533
RIP	-0.226225	0.150985	-1.498327	0.134
MIP	0.387434	0.164415	2.356435	0.0185 **
BQ	-0.083105	0.364703	-0.227869	0.8197
ET	-0.250674	0.179196	-1.398882	0.1618
DA	0.079226	0.145004	0.546375	0.5848
LAO	0.210353	0.250357	0.840213	0.4008

Note: * significance at 90% ** significance at 95%

From the above detailed table, the regression equation can be written as:

$$\begin{aligned}
 \text{Logit}(p) = & -1.531052 + 0.175883*GS - 0.011894*SC - 0.477936*\text{Corruption} \\
 & (0.3843) \quad (0.0743) \quad (0.9189) \quad (0.0529) \\
 & + 0.303245*IP + 0.06794*IC - 0.082135*EC - 0.226225*RIP + 0.387434*MIP \\
 & (0.0206) \quad (0.7221) \quad (0.5533) \quad (0.134) \quad (0.0185) \\
 & - 0.083105*BQ - 0.250674*ET + 0.079226*DA + 0.210353*LAO \\
 & (0.8197) \quad (0.1618) \quad (0.5848) \quad (0.4008)
 \end{aligned}$$

According to the data above, the table shows that the probability in the table is 0.001367, it means that all variables are able to determine their influence on the dependent variable at significant statistic 1%. The investment profile changes 0.0206, the dependent variable will get the change at 0.303245. The military in

politics changes 0.0185, the dependent variable will get the change at 0.387434. The main conclusions are drawn as follows: investment profile and military in politics have a positive correlation with the completion of Chinese overseas M&A deals.

The result of goodness of fit

Table 5 Goodness of fit (Hosmer-Lemeshow)

	Quantile of Risk		Dep=0		Dep=1		Total	H-L
	Low	High	Actual	Expect	Actual	Expect		
1	0.2153	0.6939	25	20.975	24	28.025	49	1.35049
2	0.6939	0.7541	16	13.4383	33	35.5617	49	0.67288
3	0.7541	0.7904	11	11.3393	39	38.6607	50	0.01313
4	0.7904	0.8175	1	9.51332	48	39.4867	49	9.4539
5	0.8175	0.8363	12	8.57137	38	41.4286	50	1.65524
6	0.8363	0.857	6	7.48814	43	41.5119	49	0.34909
7	0.8578	0.8755	3	6.48221	46	42.5178	49	2.15582
8	0.876	0.9004	7	5.53628	43	44.4637	50	0.43517
9	0.9008	0.9185	6	4.39402	43	44.606	49	0.64479
10	0.9185	0.9811	4	3.26211	46	46.7379	50	0.17856
	Total		91	91	403	403	494	16.9091
H-L Statistic	16.9091		Prob. Chi-Sq(8)		0.0311			
Andrews Statistic	46.9174		Prob. Chi-Sq(10)		0			

From the result of above table, the probability is 0.0311 which is less than 0.05. Therefore, we reject the null hypothesis at 95% confidence level, but can accept the null hypothesis at 90% confidence level.

Conclusion and discussion

Conclusion

This article examines and studies the total 14 factors which have influence on the Chinese enterprises overseas M&A attempts during the period of 2001 - 2012. The paper tested 14 hypotheses. According to the above test result, the result for testing hypothesis is as follows:

Table 6 Summarize for testing hypothesis

Variable	Hypothesis	Conclusions	Results
Government Stability	Positive impact on completion	No effects	Reject
Socioeconomic Conditions	Positive impact on completion	No effects	Reject
Corruption	Positive impact on completion	No effects	Reject
Investment Profile	Positive impact on completion	Positively related significantly	Accept
Internal Conflict	Positive impact on completion	No effects	Reject
External Conflict	Positive impact on completion	No effects	Reject
Religion in Politics	Positive impact on completion	No effects	Reject
Military in Politics	Positive impact on completion	Positively related significantly	Accept
Bureaucracy Quality	Positive impact on completion	No effects	Reject
Ethnic Tensions	Positive impact on completion	No effects	Reject
Democratic Accountability	Positive impact on completion	No effects	Reject
Law and Order	Positive impact on completion	No effects	Reject

It is clear that two measures which are investment profile (IP) and military in politics (MIP) have influences on the completion of M&A attempts. They have positive influence on completion of M&A attempts significantly at level of 0.05. Therefore, the two null hypotheses are accepted. At the same time, other twelve null hypotheses are rejected. The final conclusion is investment profile and military in politics have significant positive effect on the M&A completion.

Discussion

The determinants under ICRG

There are total twelve variables under ICRG. Based on the probability value above, the variables have different influence on the completion of Chinese overseas M&A. The probability boundary is 0.05 which determinate the variable whether has influence on the completion or not. The probability of investment profile is 0.0206, the probability of religion in politics is 0.134, other variables probability are more than 0.05. It means only investment profile and military in politics have effect on the completion of Chinese overseas M&A. In the conclusion, the variables in country level only investment profile and military in politics have positive impact. The result is same with the article of Jianhong Zhang, Chaohong Zhou, Haico Ebbers (2011), the research shows the institutional quality is positive and significant in the model, and the institutional quality is measured by ICRG. The result shows the institutional quality has significant positive effect on M&A performance, which fully supports the hypothesis. In this article, the variables under ICRG also have

influence on the completion of Chinese overseas M&A meals.

Implication of the paper

The paper investigates the determinants of completion of Chinese overseas M&A using logistic regression during the period of 2001-2012. The independent variable includes 12 variables.

In the article, military in politics has a significantly positive effect on the completion of Chinese overseas M&A. Military in politics is the measurement of the threat in military take-over of host country. With the larger number of military in politics, it causes the decreasing of military risk in the hosting countries. At the beginning of overseas M&A, The first step for acquiring enterprises is investigating the military risk in hosting country, it is wiser for acquiring enterprises to choose the stability country to invest, and avoid the potential loss.

Furthermore, investment profile also has a significantly positive effect on the completion of Chinese overseas M&A. Investment profile is the measurement of other factors which are not covered by main political, economic concepts. The sub-components includes (1)Contract Viability/Expropriation, (2)Profits Repatriation, (3)Payment Delays. According to the real situation, the acquiring enterprises should consider the historical situation of investment profile in hosting country. The variety of risks in payment delays, contract viability and profit repatriation in different countries causes the various choosing of acquiring enterprises. If the hosting countries have better investment profile, the success rate of completion can be increased. The

better investment profile means the hosting countries have the advance in the related industry which involves strong management, high growth companies etc. With the better quality in investment profile in the hosting countries, the success rate of completion will be increased.

Research recommendation

Referred to the results of article, the factors which have influence on the completion of Chinese overseas M&A are from various levels, the recommendations will be clarified.

The institutional distance is a great concern in overseas M&A attempts. From the results, the factors under ICRG need to be considered in M&A attempts. There are two variables have positive effect under ICRG, it indicates if the acquiring enterprises intend to expand overseas, the score under ICRG should be the consideration before the M&A deals. Military in politics means the measurement of the threat in military take-over. The stability of military in hosting country should become the vital consideration at the first step. Some countries which don't have military stability such as Turkey are in the risk of military take-over. If the acquiring enterprises choose such kind of countries, it will cause the heavy loss for acquiring enterprises. The acquiring enterprises need to pay attention to the military stability of hosting country, focus on the political and military news at all times. If the hosting country has many instability in the administration and control of military, the acquiring enterprises need to research the new targeting country to invest. Investment profile also plays a significant role on the

completion of M&A deals, it means that acquiring enterprises need to concern the historical situation of some factors which are not covered by main political, economic concepts. Contract viability/expropriation, profits repatriation and payment delays are the main measures of investment profile. The acquiring enterprises can focus on the historical real cases which related to such these factors. Based on the results of these real cases, the acquiring enterprises make their decision about whether invest or not.

Limitation and further research

After empirical test for this paper, the estimation in the paper is conducted in a limited scope and further research which can be listed as follows:

1. There are a lot of important factors which have influence on the completion of M&A attempts. In the article, only 14 factors in various levels which are 12 factors under ICRG in country level, SIC in industry level, kinds of ownership in firm level are considered. There are still many factors which can affect the completion rate might be missed to examine in the research. In the further study, more independent variables should be added to investigate the impact on the completion of M&A attempts.
2. Due to lack of the data under ICRG between 2013 and 2016, there is a limitation in the numbers of M&A in recent years. In the further study, the transaction numbers need to be collected more specific.
3. The main targeting enterprises are focus on the enterprises in the developed countries, but only little deals in the

developing countries. It means that the acquiring enterprises lack the experience of M&A in the developing countries. In

the further study, the developing countries can be as the targeting in the research.

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MANAGERIAL AND ORGANIZATIONAL ISSUES IN A POST-ACQUISITION MEDIUM-SIZE FOOD MANUFACTURING COMPANY IN SOUTHERN CHINA

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Abstract

Acquisition is a common strategy for expansion and diversification. Nonetheless most research on this topic focuses on selective geopolitical areas or on cross-cultural issues. This article investigates a cross-regional acquisition within China. It shows how the redevelopment of organizational strategies during the post-acquisition phase may affect various human resource management issues. It argues that the introduction of certain management techniques can only deal to some degree with differences in organizational cultures. It highlights the need for a careful examination of the extent changes in routine organizational practices are necessary and desirable as a part of an acquisition.

Introduction

Acquisition is a common strategy for expansion of small and medium-sized companies; it is also for large corporations a way of diversifying into new sectors (Schraeder and Self, 2003). Acquisition however is not without risk, as it is an event of instability that will significantly influence many organizational aspects, including human resource management (Nikandrou *et al.*, 2000). Organizational change as a result of acquisitions presents a considerable challenge in itself and tends to be aggravated by pronounced differences in existing organizational cultures (Stahl *et al.*, 2004).

Research on acquisition is plentiful; it nonetheless tends to be restricted to Western Europe or North America, or involves companies with headquarters in these places branching out to markets elsewhere. There is a distinct lack of research that investigates cross-regional acquisitions in Asia, especially with a focus on organizational change and its consequences in terms of human resource management.

This article investigates the acquisition of a mid-size regional company in Southern China by a Chinese corporation, which itself is part of a large Pan-Chinese investment groups. It aims to show the effects of this acquisition, which was largely driven by market diversification

efforts, in terms of organizational behaviour and human relations. It specifically will draw out how redeveloping an organizational strategy during the post-acquisition phase affects various human resource management issues. It finally will argue that the introduction of certain management techniques can only deal to some extent with differences in organizational cultures that may result in partial and transitory arrangements.

Literature review

Acquisition is a popular form of enterprise development. There is a vast range literature that highlights human relation issues in terms of change during and after acquisition (e.g. Cartwright and Cooper, 1993; Hubbard and Purcell, 2001; Nikandrou *et al.*, 2000; Schraeder and Self, 2003; Schuler and Jackson, 2001; Schuler and Jackson and Luo, 2004; Stahl *et al.*, 2004; Weber, 1996 *et al.*). Some authors focus on specific cross-border acquisitions and the cross-cultural elements this may involve (e.g. Stahl *et al.*, 2004).

Overall, acquisition almost always is a considerable interference with harmonious culture, and often leads to a “clash” of cultures (Cartwright and Cooper, 1996). Organizational culture is considered to have an effect on acquisitions, in particular when different types of culture meet. It affects the management styles and employee behaviour, notably in the acquired company. The influence of organizational cultural on the acquired company is significant, as it is often contested and can involve the loss of senior management (Hambrick and Cannella, 1993; Nahavandi and

Malekzadeh, 1988). However, there is usually a marked difference in terms of growth between young or small organizations and large or mature ones; the former mainly grow organically while the latter achieve the bulk of their growth through acquisitions (Davidsson *et al.*, 2010). This often relates to different predispositions management may have towards growth in a company (Wiklund *et al.*, 2010).

Marks and Mirvis (1985) show that after acquisition, there is a tendency in which people think “Us” versus “Them”, as differences in modes of operation and management become apparent. Conventional thinking results in employees of an acquired company attaching certain significance to their previous culture, seeing it as superior to the new culture. Cameron and Green (2009) argue that culture clashes manifest themselves in a range of signs, including stereotyping, glorifying the past, making comparisons, and selective information sharing. Stereotyping emphasizes differences, rather than focusing on commonalities. The past is glorified in notions that juxtapose old practices with new ones; while the new is seen unfavourably, weak and, inferior whereas the old as positive, valuable, and superior. Attitudes towards sharing information can shift from cooperation towards coalition (Cameron and Green, 2009).

Barriers that occur in the post-acquisition phase are characterized by unclear prospects, uncertain goals and objectives, and lack of communication (Nguyen and Kleiner, 2003). Authors such as Bennis and Nanus (2007) have highlighted any new vision must be practical and credible to stand a chance of succeeding in

developing an adequate acquisition strategy. While some of the discussion in the literature focus on strategic fit (e.g. Lubatkin, 1983; Lubatkin and Lane, 1996), others highlight leadership and communication (e.g. Stahl *et al.*, 2004).

Human relation factors are a key issue for acquisition; seminal texts have established the significant effect this has in terms of understanding acquisition (e.g. Kimberly and Quinn, 1984; Bueno and Bowditch, 1989; Cartwright and Cooper, 1992). Messmer (2006) points out that those affected by acquisition might experience emotions ranging from fear and confusion to acceptance and excitement. Employees may feel overwhelmed by a perceived lack of control during acquisition (DeNisi and Shin, 2005) and the increase in uncertainty (Van Dick *et al.*, 2006). It can results in low productivity and employee grievances (Nguyen and Kleiner, 2003). In other words, changes that may occur during acquisitions threaten the existing values, structure and social identity of an organization (Bartels *et al.*, 2006).

Pritchett (1987) suggests that employee training is the best way to create a common orientation that may facilitate the acquisition process. While some commentators advocate reward mechanism to motivate and retain staff (Beckhard and Pritchard 1992) and creating emotional connection between management and staff (Schweiger *et al.*, 1987; Ashby and Miles, 2002), other commentators however are more sceptical. Alvesson and Willmott (2002) for example argue that an organizational regulation of employee's identities is a precarious and often contested process, as people are 'not reducible to passive

consumers of managerially designed and designated identities.' (2002 p. 621).

Methodology

The research undertaken for this case study investigates management decisions and organizational behaviour surrounding the acquisition of a medium-size food manufacturer in Southern China. It deploys a qualitative approach in form of an in-depth analysis that aims to provide accounts containing some level of "thick descriptions" (Geertz, 1973). As such it aims to draw out the context of this acquisition, while specifying internal relationships in detailed and self-referential ways. It is not generating a "General Theory"; instead it provides ways to generalize within this case, with the aid of an intelligible perspective that is interwoven with wider concepts that have emerged within existing academic discussions in management and organization studies (Epifanova and Hild, 2015).

This form of relatability characterizes case studies (Bassy, 1981). Yin (2002) argues that a case study approach allows to shows that each case can incrementally be built upon, as each subsequent similar case attempts to replicate elements of the prior ones. Moreover, case studies often show rare situations (Small, 2004); most empirical investigations in the literature on acquisition are either focusing on takeovers that occurred in North America or Western Europe, or between North American and Chinese organizations. Detailed cases of cross-regional acquisitions in China are rare and under-explored.

While the underlying methodology is a case study approach, this study utilizes

interviewing techniques (Small, 2009). The conducted interviews were a combination of in-depth interviews and a type of group interviews. The latter were not focus group interviews as such, where with the aid of an intercessor, informal discussions occur within a group of people (Zikmund *et al.*, 2009). Instead in line with Chinese group culture, one of the authors interviewed groups of six to eight people, where individual members of a group responded as they saw fit. Rarely did group members engage in discussion with each other, but presented their take on the issues, while trying not to overtly contradict other group members. This was mostly done with shopfloor workers and supervisors. Even for many of the in-depth interviews with executives and senior management, another one or two people were present and occasionally commented or elaborated on the issues discussed between the interviewee and main respondent.

The interviews were standardized and non-scheduled (Briggs, 1986), deploying a list of 14 conversation topics (related to change, working practices, and HR issues) that aided the interviewer in responding in non-directive ways, while maintaining some focus as the narratives unfolded. The interviews were conducted in Chinese and were audio recorded and transcribed. This provided the source for a thematic analysis; themes in this sense

are patterns across collected data that are important to the description of a phenomenon and are associated to a specific research question (Daly *et al.*, 1997). A summary translation in English was subsequently undertaken. Quotes used in this article are translations of verbatim transcript excerpts that render meaning of the source into the target language; in terms of its translation techniques, it tends to be closer to dynamic rather than formal equivalence (Nida and Taber, 1969).

The interviews were conducted in two phases. The first phase of interviews aided the process of refining the research directions and was more explorative; these interviews were restricted to the acquired company. The second phase, resulted in a more focused interview schedule and included both the subsidiary and the parent company—*i.e.* the acquiring company. Access to both companies was facilitated by personal connections of one of the authors; senior management in both were aware of this research project and either welcomed it or did not object to. The names of the two companies and the names of the people quoted in this article are pseudonyms. A total of 61 people were interviewed, including senior management, middle management, workers, and former employees. The following table shows details of the selection of interviewees who are quoted in this article.

Table 1 Description of selective interviewees

Age	Years of job experience	Position
Mr Ho	53	28
Mr Li	47	17
Ms Gu	45	18
Mr Liu	43	13
Mr Li	41	10
M. Chen	38	9
Mr Liang	32	5
Mr Chen	42	13
		Senior executive, Bingafu Group

Analysis

The analysis of the interview data resulted in three key themes. The first theme showed how the acquisition Guangxi Soybean Foods Company (GSF) led to a change in strategy and operation. While many of these changes were questioned or even resisted, there was a certain normality and constructiveness regarding the surrounding discussions. By contrast the second theme showed a clash of cultures and ideas about how things ought to be done that directly affect the work atmosphere and staff morale. Fundamentally opposing values and their underlying beliefs led to entrenched and resenting positions that recreated mutual distrust and suspicion.

The third theme showed how the introduction of formal management techniques promised not only better performance, but also an increase in fairness for individual career advancement. The combination of a mere partially fulfilled promise of fairness, the deeply unsettling clash of cultures, and the newly trained workforce resulted in high levels of resignations in the post-acquisition phase.

Changes in strategy and operation

After Bingafu Group acquired Guangxi Soybean Foods Company (GSF) major changes occurred in the subsidiary. This entailed a complete transformation of GSF organizational and financial strategy. The new overall directive was an implementation of a short term strategy to drastically increase profits, expand market shares and to have the listed company at an international stock exchange. Bingafu appointed an external consultant, with substantial acquisition expertise, to implement these changes.

In particular the new strategy aimed to achieve 130 million RMB in earnings for the first year, and 180- 250 million RMB for the second year after the takeover. To contextualize this, prior to the takeover, GSF's total annual revenue had never exceeded one hundred million RMB and the company was not really known as a brand outside its Southern region. Senior managers and executives felt that the new strategy was unrealistic if not grandiose. They saw the proposed measures as far too drastic and too expeditious. They envisaged a much more gradual "reform" and had serious reservations about the market opportunities for their products.

We've worked in this company for many years and know the rules of the industry... We understand the limitation of our consumer group in terms of soya bean products. This short-term target, as set by the new leader—this layman—we feel is not achievable. (Mr Ho, director of technology centre and Mr Li, director of product department, GSF)

It is striking how these two interlocutors portray the newly appointed head of the subsidiary as not understanding the situation. This was not an isolated instance, but appeared a variation of common responses that were voiced throughout the organization including its support functions. As such it presented a subversive mode that aimed to resist the new measures.

The [new] professional manager is a bit arrogant because of his experience of integration in other company, but it is his first time to participate in an acquisition in the food industry. (Mr Li, director of product department, GSF)

By contrast, executives from Bingafu justified the new strategy as a purposelessly aimed way of expansion that had worked before in the “natural” order of acquisition, where control is exerted by the buyer.

In our opinion, if there are no high ambitions the company cannot develop. Our group has grown rapidly in recent years through merger and acquisition... It is why they were acquired by us. We are the acquirer! (Mr Chen, senior executive, Bingafu Group)

Although it remains open to speculation whether strategists at Bingafu really believed that these targets can be met, it had fundamental organizational consequences. It not only led to

disapproval and subsequent resignations of many long-term employees, but also to a substantial redesign of operational and tactical directions.

Hitherto the takeover, Guangxi Soybean Foods business or product “philosophy” empathized on the quality of the raw materials and final products, with relatively little concern for cost and speed of production. After the takeover, product formulas were altered to reduce production costs; this change was modelled on a local competitor that produces similar foods by deploying a more low cost operation method. While some senior managers saws these developments as positive, others were more sceptical.

After the professional manager arrived, he made a new plan which improved the product formula to reduce costs. (Mr Ho, director of technology centre, GSF)

To reduce production costs, the professional manager has made a wrong decision by saving on [raw] materials, which result in an even bigger loss. (Ms Gu and Mr Liu directors of production, GSF)

Similarly there were concerns about the outsourcing of in-house processes for refining raw materials. It was felt that this was a loss of control over the much prided quality of used ingredients. Yet as some of the company's processing line became increasingly dated and less reliable, running certain in-house processes had become a risky endeavour.

Our defective equipment cannot deal with some raw materials sufficiently... so outsourcing is a good way to maintain quality while lowering risk. (Ms Gu, director of production, GSF)

By contrast, there was much less objection about cost reduction through technological changes in the production line, as a result of investment that allowed replacing dated shopfloor equipment. Likewise, the investment in the workforce by improving their skills through training them how to operate the new equipment was seen as positive by the workforce.

We are delighted with the present measures to improve the production technology... because this is the most feasible way to reduce costs in the current situation. (Mr Li, Ms Chen, Mr. Liang, and others, staff of product department and quality control department from food company, GSF)

Many of the employees at GSF were hoping for more gradual changes that entailed substantial investments that would lead to an increase in the production efficiency and workers' skills, while maintaining a high standard in product quality. However that organizational transformation went far beyond these narrow aspects appeared neither fully anticipated nor much appreciated.

Clash of cultures and ideas

While indeed it is debatable how best to improve a medium-size company that struggled to make profits, it is apparent that this acquisitions was characterized by organizational ruptures and discontinuities. Guangxi Soybean Foods Company, prior to the acquisition by the Bingafu Group, was a regional company in Southern China that was built on tradition and local values that fitted the pace of life in this autonomous region.

The whole atmosphere of the enterprise was like a family. Our management model was the "milk of human kindness". (Ms Li, staff, HR department, GSF)

We were not perfect... but before [the acquisition] we worked happily and felt we belonged here. (Mr Mo, director of import and export department, GSF)

This stands in sharp contrast to the organizational culture of the parent company. While the representatives of Bingafu aimed to portray themselves and their groups as ambitious and aspiring, many people at the acquired company felt their ways of doing things were imposing if not pugnacious.

Our group is a comprehensive big group and also has other acquisition experience; they must follow us. (Mr Pan, deputy general manager, Bingafu Group)

We have worked in this company for a long time... Why should we follow them? (Mr Liu, director of HR department, Ms Li, Ms Huang, Ms Peng and others, HR staff, GSF)

Such differences could well be construed as a "conservative" organizational culture being confronted with "aggressive" culture, in the classical "us" versus "them" fashion. Yet it seems to points to a much deeper indifference in terms of prevailing values. It led to bitterness and resentment among the employees of GSF, as they felt their views of the work-life seemed not to fit any more in the new practices. Notably here were the abolition of the company sponsored daily breakfast and the annual social gathering. For Bingafu it was inconceivable as to why the company ought to run at breakfast kitchen and feed the staff in collective gatherings, or sponsor a lavish dinner party for its

employees, whom it pays wages and salaries. It was beyond acknowledging that these routine practices of gathering were manifestations of some form of fellowship—that employees have something in common, as they collectively valued sharing interests and feelings, fostering friendly and collegial relationships.

Most of us believe that the employees' breakfast not only means filling the stomach, but also lets the staff to start work communication over breakfast... (Mr Liang, Mr Zheng, Mr Liu, and other production staff, GSF)

The annual meeting just like the family reunion dinner; it's a symbol of unity...

(Mr Liang, Mr Zheng, Mr Liu, and others production staff, GSF)

The tremendous importance both shopfloor workers and management placed on these common actives seemed lost on the parent company. It was an unnecessary expenditure that did not fit into their plans and seemed alienating to their own practices.

At Bingafu Group and its subsidiaries we don't have [common] breakfast [provision]. They [Guangxi Soybean Foods] are a subsidiary of us; for that reason we cancelled the breakfast and annual social [gathering]... These were the measures to reduce manpower and production cost. (Mr Chen, operations manager, Bingafu Group)

Although it is beyond the scope of this research to contextualize the savings made by these measures in the overall expenditure, the position of the parent company on this issue is strikingly blunt. There is a noticeable absence of dialogue, appeasement, or compromise. Employee

motivation, a sense of belonging, and an overall organizational atmosphere seem either irrelevant, or supposedly ought to be fostered, by completely different means than eating together as people do in many places across China.

Chances for staff development or a human resource dilemma?

The takeover by Bingafu Group let to the introduction of new management techniques replacing the relatively loose rules for reward and punishment that had hitherto existed at Guangxi Soybean Foods Company. Yet unlike the highly contentious situation about possible strategic directions, the debates surrounding these new techniques were far less hostile and more constructive. The implementation of performance indicator and staff quality assessment combined with staff training plans, was generally not resisted; although some felt it was a quite a speedy change or that this was quite a formal approach.

The implementation of PI and QA is a good way for correcting the employees' work attitude, especially for those who have become lazy... (Mr Ho and Mr Chen, directors of technology centre, GSF)

It's a good point to implement these modern management tools, but it might not be suitable to implement at this early stage... (Ms Peng, Mr Shi, Mr Cai, and others production staff, GSF)

Nonetheless, it was acknowledged that these techniques needed to be tailored to the company's specific situation. It resulted in a rather normalized debate as to what is suitable for managing in each unit.

The performance appraisal standard is divided into two parts: daily standard criteria and specific functions standard... But some standards are not suitable for the core functions of the department. (Ms Li, Mr Ho and Mr Liu and others department managers, GSF)

The implementation of modern management tools still needs to be adapted... (Mr Chen, operations manager, Bingafu Group)

The new management techniques that were based on a set of defined standards promised a sense of fairness and objectivity. Some managers at GSF saw this as a chance to reduce the existing forms of nepotism and favouritism, especially in terms of job promotion and career advancement. Nonetheless, for some theses hopes were crushed as they felt that many key positions were filled from the parent company rather than from within the subsidiary.

New managers are often chosen from Bingafu and hardly come from our staff. Although they have implemented performance indicators and quality assessment, there are still some excellent staff who cannot get promoted. (Ms Li, Mr Ho, Mr Liu, and others, mangers, GSF)

Management has always been monopolized by people from Bingafu; most staff have realized that there's no chance of advancement for their future in this company. (Mr Wang, Mr Liu, Ms Chen, Mr Mo and other production staff, GSF)

It consequently led to further dissatisfaction and resignations of core function staff. Although people had initially welcomed the new skills training they received after the takeover, it

subsequently became regarded as a mere advantage for finding employment elsewhere. Especially younger staff readily left as opportunities arose elsewhere. While the new management techniques were not resisted as such, it was the perceived contradiction in the light of the absence of a genuine merits-based logic that appeared to have caused resentment and resistance.

Discussion

According to Bennis and Nanus (2007), strategic visions ought to be perceived by organizational members as practical and credible. Unclear and unrealistic visions however can lead to organizational disruptions, including a significant loss of skilled employees. Meaningfully conveying new ideas is particularly important if differences in organizational cultures are very pronounced (Stahl *et al.*, 2004). For the staff at Guangxi Soybean Foods Company it was not clear or logical as to why the transition had to happen so drastically and why a gradual “reform” could not be possible. As Kilmann *et al.* (1985) point out change of organizational culture is not easily accepted at individual level. Yet it is even considerably more difficult if the logic behind change is not clear or too alienating.

Although adequate vision and management skills are crucial for developing an acquisition strategy as Hangeslagh and Jemison (1991) highlight, it is important to examine how fundamentally different these two are organization were. While this acquisition can easily be portrayed as a story of mismanagement, we would like to point to the enormity of the task that this

particular takeover entailed. Ashkanasy and Kavanagh (2006) argue that a fast pace of change is not necessarily beneficial as organizational cultures are transformed. We suggest the greater the differences, the slower the pace has to be for smooth transitions. Nonetheless, smooth transitions are not a higher value *per se*. Ruptures and turbulences can indeed be a strategy of change that however usually result in notably different organizational forms and often comes at high cost at personal, organizational, and social level.

While it is debatable how desirable such a strategy is, the implications are empirically discernible. Seminal texts, including Cartwright and Cooper (1996) and Kilmann (1985), have highlighted that acquisitions are a considerable interference with organizational culture and almost always lead to some form of cultural “clash”. Moreover, as Wiklund *et al.* (2010) argue, the work atmosphere in small and medium-sized firms is often affected by growth; while the attitude of management towards growth is a significant factor, management's belief (or disbelief) in growth tends contribute to a positive (or negative) atmosphere as expansions happen. It is precisely this lack of support by management through its predisposition of being sceptical about (rapid) growth that seems to have aggravated the “normally” problematic situation that acquisitions always entails.

In this sense, Guangxi Soybean Foods seems to be affected in a manifold way. At the surface or artefact level in Schein's (2010) terminology of organizational culture, a regional medium-size food company that previously had been supported by the local government is confronted with the ways of a large

holding corporation. Their values of “family-like”, harmonious work relationships contrast with the beliefs in efficiency and performance-driven action that dominate the acquiring company. Their underlying fundamental assumptions (Schein, 2010) of “tradition” on one side and “fast progress” on the other side seemed to have created sharply opposing perspectives. Yet, as management is significantly implicated and entrenched in these cultural differences, they are not mobilizing employees to embrace the new ideas.

As Alvesson and Willmott (2002) highlight organizational change is usually contested; yet, if the champions for change are not there or are seen as incredulous outsiders in the first place, the already monumental task of transforming culture is unrealistic and inevitably results in disorganization and sudden discontinuities. As Nahavandi and Malekzadeh (1988) point out assimilations tend to be more disruptive than cultural integration; however unlike merges, acquisitions can hardly be characterized as integration. The consequences in terms of organizational stability and human resources are considerable (Hambrick and Cannella, 1993). As Hofstede (1980) points out forced change is never welcome and the feeling of a lack of control will usually result in negative reactions by organization members (DeNisi and Shin, 2005). For most of the original employees at Guangxi Soybean Foods the takeover had a strong flavour of assimilation that crystallized in classical “Us” versus “Them” thinking (Marks and Mirvis, 1986) and glorified the past (Cameron and Green, 2003).

Indeed the implications for human resources are predictable and the acquired company experienced a wave of *en masse* resignations in the post-takeover phase. Nguyen and Kleiner (2003) and Marks and Mirvis (1985) have shown how organizational change can lead to significant stress for employees, because of feelings of losing control and helplessness, which in turn results in low productivity and grievances. Yet, it is noteworthy that the new management techniques of performance indicators, quality assessment and staff training did not significantly improve staff motivation and moral. While employees did not object to these measures *per se*, some even saw cautiously welcome them, it did not create a momentum that could have mediate the effects of the cultural clash.

Charman (1999), like many others, argue that human resource management ought to be a change champion, by facilitating training and skills development that nudges people into the desired direction. However, while this might be the case in some situations, evidence from this study indicates that if the overall tenor is not right—if the clash is too fundamental—such measures will not work. People are not easily duped into accepting views that are significantly different from their own. In the end, they may comply somehow and in pragmatic ways, but may leave as soon as alternatives arise.

This form of instrumental thinking appears even more pronounced in terms of the offer for training and skills development when it is not combined with a realistic prospect of career advancement. Beckhard and Pritchard (1992) show that merit-based reward systems can be a motivating factor for

employees. Of course if such a system prioritizes candidates from the acquiring company over the acquired one, it might be a counter-productive measure in terms of motivating employees. It can increase mistrust and perpetuate low productivity (Schweiger *et al.*, 1987).

The prime objective of the introduction of these HR measures might well have been the development of a workforce that can adequately operate the new production line technology, which the financial investment by the acquiring company made possible. Nonetheless, HR-related investments for training a skilled workforce may not be underestimated, as they require substantial resources. Hambrick and Cannella (1993) argue that the ability to retain a core workforce and key executives is an important determinant in ensuring the long-term success of an acquisition.

While it appears that employees adopted a much more instrumental perspective following the takeover, it could indeed be construed as a reflection of the company's new pragmatic vision for its own profitable end. It introduced formal processes that are somehow essential for running a technologically advanced production line, while not necessarily rooting out favouritism and nepotism. It consequently had no real effect on reducing the clash of organizational cultures and led merely to a higher job mobility of those employees who sought employment elsewhere.

Conclusions

This article has shown how a mid-size food company in Southern China had undergone considerable organizational

change as a result of an acquisition by a large holding company that aimed to expand into this market sector. It showed how a distinctly regional company with a conservative business outlook and beliefs in family-like values was suddenly confronted with the ways of a holding corporation with an ambitious and efficiency oriented and profit-driven organizational culture.

The subsequent clash of organizational cultures that this study documented was considerable. By doing so this study contributed at empirical level to a wider understanding of acquisition in terms of cross-regional takeovers in China; most existing research is either centred on Western Europe and North America, or cross-border acquisitions. At conceptual level this study supports Ashkanasy and Kavanagh's (2006) view the pace of change is of tremendous importance in terms of organizational cultures. We advance this view and suggest that the greater the differences the slower the pace has to be for smooth transitions, while acknowledging that rapturous and turbulent change can be a deliberate strategy that nonetheless comes at high cost at personal and organizational levels.

Moreover, we suggest that the introduction of certain management techniques can smooth over existing human relation issues that arise from

differences in organizational culture. While we generally agree with the notion that management's own predisposition towards growth (Wiklund *et al.* 2010) can affect the work atmosphere, there are limits to the extent management can make a difference. We suspect that if differences are too vast, because of diverging fundamental assumptions (Schein 2010), the efforts by management to improve workplace atmosphere and staff morale may largely be irrelevant. At best it will lead to pragmatic outcomes that will only hold momentarily, as a high staff turnover—including a considerable loss in HR and individual investments—remains a constant possibility.

Management practitioners are of course well advised to assess cultural differences between the organizations in case of an acquisition. However, more importantly it remains questionably how much change in terms of day-to-day human resource management practices is necessary or desirable for redeveloping overall strategic directions. The subtle diversity of places such as China, and many other nation states, inevitably influences organizational culture; yet the extent to which different ways of doing things would directly matter for a company's strategic vision needs to be careful evaluated case by case.

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THE FACTORS RELATED TO CREDIT RISK OF COMMERCIAL BANK: THE CASE OF CHINA AND THAILAND

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Abstract

The financial system plays a crucial role in the country's economic development, in which banking sector is an important part in financial system. A commercial bank is a financial institution that offers a number of banking services such as deposits, personal and business loans, and investment products for supporting a sustainable economic development. In general, banks want to earn as much money as possible but at the low risk possible. Credit risk is one of the major issues in risk management in the banking sector, which refers to the risk that a borrower will default on any type of the debt by failing to make required payments or even not on time. Credit risk is the potential loss due to the nonperformance of a financial contract, or financial aspects of nonperformance in any contract. It leads to bad loan problem in banking sector. This research intended to investigate the factors related to credit risk of Chinese banking sector and Thailand banking sector during 2007 to 2014. It will be superiority to understanding the credit risk that banks facing, in order to implement effective credit risk management to supervise and reduce this risk to achieve the long-term success. The finding indicated that there are differences in Risk-weighted assets/Total Assets (RWA/TA) and Non-Performing Loans/Total Liabilities (NPL/TL) between Chinese commercial banks listed in SSE and SZSE and Thai commercial banks listed on SET during 2007-2014. The macroeconomic factors and bank-specific factors were more significant on explaining the RWA/TA and NPL/TL in Chinese commercial banks listed in SSE and SZSE; while macroeconomic factors and bank-specific factors are more significant on explaining the NPL/TL of commercial banks than those of RWA/TA.

Introduction

The financial system plays a vital role in the countries' economic development, and commercial banks as financial institution, is an irreplaceable part in financial system. In the past few years, due to the high-speed economic growth and loose monetary policy, banking sector have maintained the rapid expansion in both China and Thailand. From financial crisis we know that if a bank's assets value is lower than its liabilities value is the most significant point that leads bank failure or even bankruptcy. The reason often related to the decrease the asset's value is the increase in credit risk due to the non-performance loans (Apergis & Payne, 2013). After Asian financial crisis, great attention has been given to the non-performing loans of financial institutions. Chinese economic had a great develop in its economic transition from planned economy to market economy; however, a large volume of non-performing loans has been produced during this period. Chinese NPLs is mainly the result of extensive policy lending, low efficiency of large commercial banks, weak corporate governance and poor operation skills of the banks, and the business cycles. In 2003, the government of China recapitalized the banks and set up the China Banking Regulatory Commission (CBRC) as the country's independent banking regulator. It is responsible for

the national banking financial institutions and their business activity regulation. (Huang, 2006).

The financial crisis of 1997 has greatly affected the performance of Thailand banking industry. During this period, a mount of non-performing loans was produced. As a result, there are the initiatives to implement Financial Sector Master Plan (FSMP) as a medium-term development plan for financial institution under the supervision of Bank of Thailand. This plan prompted the Thailand banking sector increase its financial sector efficiency (Menkhoff & Suwanaporn, 2006). Basel Committee on Banking Supervision was written a document in 1988, which recommends certain standards and regulations for banks (Basel Committee on Banking Supervision, 2014). It was called Basel I, the Basel II came out with a revised Capital Framework in 2004 to replace the 1988 Accord. Most recently, the committee has published the Basel III. The changes aimed at rewarding and encouraging continued improvements in risk measurement and control. Those document mainly recommend that banks should hold a minimum capital to risk-weighted assets of 8%. Risk weighted assets is another main indicator for credit risk of commercial banks. In the last 15 years, from the table showed that banking sector of China and Thailand had done a great job in aspects of asset quality and credit risk control.

Table 1 Bank nonperforming loans to total gross loans (%)

Year	Country	
	China	Thailand
1999	28.5	38.6
2000	22.4	17.7
2001	29.8	11.5
2002	26.0	16.5
2003	20.4	13.5
2004	13.2	11.9
2005	8.6	9.1
2006	7.1	8.1
2007	6.2	7.9
2008	2.4	5.7
2009	1.6	5.3
2010	1.1	3.9
2011	1.0	2.9
2012	1.0	2.4
2013	1.0	2.3

Source: World bank (2014)

Related literature

The credit risk in banking is ecumenical defined as the profitability of a borrower defaulting his loan commitments. A bank needs to implement effective credit risk management to manage and reduce this risk to achieve the long-term success. Credit risk is defined as one of the original and primary risk factors that financial institutions have been confronting all the time (Washington, 2014). Controlling non-performing loans is very important for both the bank performance and the economy's financial development (McNulty, Akhigbe, & Verbrugge, 2001). When the level of non- performing loans is quit high, the provisions are not adequate protection. Financial crisis are often related to default loan of banking institutions, one of the important reasons triggered the financial crisis is the huge non-performing loans of the banking institutions.

Ongore and Kusa (2013) studies investigated the effect of bank specific and economic variables performance by taking ownership identity as moderating variables; it covered 37 banks of Kenya from year 2001-2010. The investigator use capital adequacy (CA), asset quality (NPLs), management efficiency (ME), liquidity management (LM), gross domestic product (GDP) and average annual inflation rate (INF) as independent variables to measure the bank performance (ROA, ROE, NIM). The results show a strong negative influence of non-performing loans in all three indicators of bank performance. It is evident that asset quality is one of the major factor to affect the bank performance, means that bank performance has a great influence on asset quality (NPLs) (Mohammed, 2012). The empirical literature by Shingjergji (2013) confirmed this conclusion. The researcher uses a simple regression model like OLS estimation to test capital adequacy ratio (CAR), loan to asset ratio (LTA), ROE, natural log of

total loans and NIM for explain the non-performing loans ratio. The evidences shown that CAR and ROE were negative related with NPLs ratio; other three have a positive relationship with NPLs ratio.

Pestova & Mamonov (2012) found out that during the latest crisis Russian banking system was faced a bad loan problem. They employed the percentage of nonperforming loans as indicator to measure the credit risk. Net interest margin (NIM), management efficiency (measured by cost to income ratio), operational efficiency, bank performance, and solvency ratio (capital adequacy ratio) as the bank-specific factors are related with credit risk. Low cost efficiency indicates low quality of bank management, which is the main reason lead to problem loans increase (Louzis, Vouldis & Metaxas, 2011; Podriera & weill, 2008). They also use bank's past profitability (ROA, ROE, NIM) should have positive sign impact on credit risk. GDP growth, inflation rate and exchange rates as macroeconomic factors related with credit risk. Capital adequacy ratio has a negative relationship with credit risk, which means that low capital adequacy ratio will lead to high probability of bank default. This statement was widely accepted in literature (Berger & Deyoung, 1997; Salas & Saurina, 2002).

Vatansever & Hepsen (2013) employed ordinary least square estimation approach to investigate the impacts of macroeconomic indicators and bank-specific factors on non-performing loan ratio in Turkey. The researcher identify inefficiency ratio (INEF), debt ratio (DR), ROE, loan to asset ratio (LOAS), CAR as bank-specific factors; and totally twelve indicators as macroeconomic

factors (such as GDP growth, interest rate, consumer price index, exchange rate, etc.). The results show that GDP growth and interest rate does not have significant effect on NPL ratio; inefficiency ratio of all banks negatively, return on equity (ROE), capital adequacy ratio (CAR) positively affect the NPL ratio. In the same study direction, Al-Wesabi and Ahmad (2013) studied on the factors affecting credit risk of Islamic banks in Gulf Cooperation Council countries. Twenty-five Islamic banks were selected in this research. The non-performing loans as indicator of credit risk as well and independent variables divided by three macroeconomic factors which are gross domestic product, inflation rate, LIBOR and six bank-specific factors which are natural log of total assets, management efficiency, regulatory capital, proportion of loans to deposit, risky asset, loan loss provision. Regression model is used to measure the variables affecting credit risk. After regression model measured, it found out that management quality; L\D; risk assets, and GDP are statistically related with NPL. Which means that risky assets indicated the high credit risk; and GDP growth is declining, the credit risk will go up.

Further, Stephanou & Mendoza (2005) agreed that total assets is an important factors impact on the credit risk of commercial banks, at the same time, they also supplied that age of company was a probability factor that related to company default. Al-Wesabi & Ahmad (2013) investigated on credit risk of Islamic banks in GCC countries, NPL was used to explain the credit risk as well, and also GDP growth, inflation rate are the external independent variables, particular is management efficiency and risky asset

which is real estate asset in GCC countries were employed by independent variables to measure the dependent variable. The results shown risky assets positive correlated to credit risk, and GDP growth negative related with credit risk.

Based on the previous researches in the studying of influential factors affecting the credit risk of commercial banks, the conceptual framework of this research can be drawn in the figure 1 below.

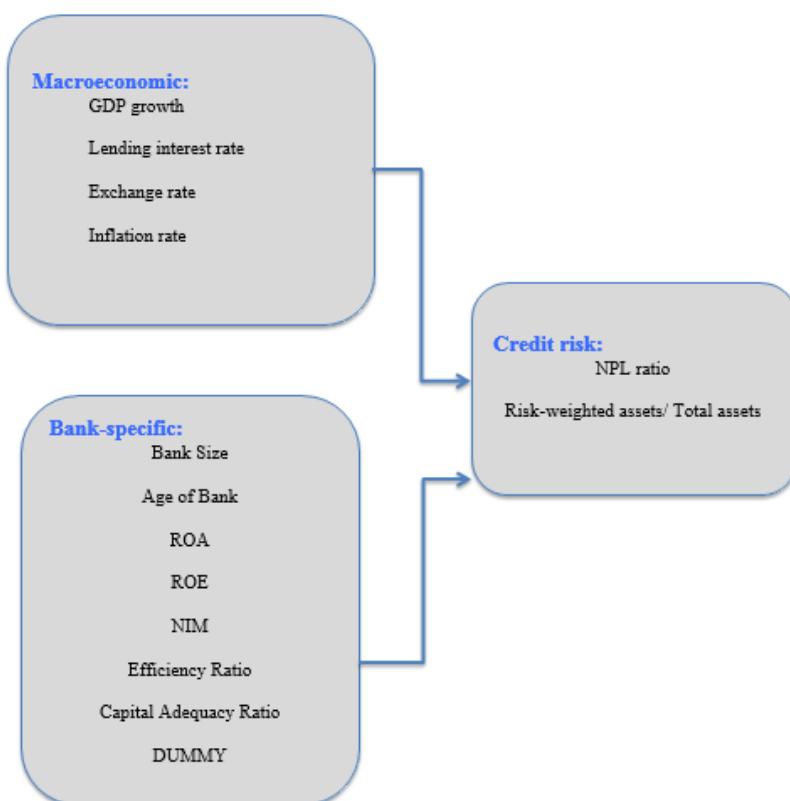


Figure 1 Conceptual framework

Credit risk indicators

In this research, the credit risk was measured by Non-performing Loans Ratio, and Risk-weighted assets.

Non-performing loans ratio

Non-performing loans ratio reflects the return of bank's loans to non-bank borrowers, which is typically calculated from the amount of non-performing loans

to total loans. The larger non-performing loans ratio means the worse credit quality of the bank, which can further lead to credit crunch and sizeable allowance provision. Under circumstance, the interest income tends to lower, and thus leads to lower profitability.

Risk-weighted assets

The ratio of risk-weighted assets can be calculated from adjusting each asset class for risks for determining a bank's real world exposure to potential losses. In other words, it demonstrates how much loss-absorbing capital a bank needs to sustain it through difficult markets. The nature of a bank's business means it is usual for almost all of a bank's assets will consist of loans to customers. Comparing the amount of capital a bank has with the amount of its assets gives a measure of how able the bank is to absorb losses. Therefore, the ratio of risk-weighted assets to total assets is employed as a measure of bank credit risk, as suggested by Lesle and Avramova (2012).

Macroeconomic factors

In this research, the macroeconomic factors were identified into four factors, including GDP growth, Lending interest rate, exchange rate, and inflation rate.

GDP Growth

GDP growth is assessed through the annual percentage growth of GDP at market prices based on constant local currency. Annual data from 2007- 2013 was used, and the data was sourced from the World Bank website.

Lending interest rate

Lending interest rate is the bank rate that usually meets the short-and medium-

term financial needs of the private sector. It is differ by country, and annual data from 2007- 2013 was used, and the data was sourced from the World Bank website.

Exchange rate

Exchange rate is the official exchange rate that is determined by national authorities or to the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on monthly average. The official exchange rate is local currency units relative to the U.S. dollar.

Inflation rate

Inflation rate is measured by Consumer Price Index for all goods and services. Inflation is the rate at which the general level of prices for goods and services is increasing, and, follow up the purchasing power is decreasing.

Bank-specific factors

In this research, the bank-specific factors were identified into eight factors, including bank size, age, efficiency ratio, capital adequacy ratio, ROA, ROE, net interest margin, and dummy variable.

Bank size

Bank size is measured by natural logarithm of total assets. Bank size is total assets of the banks are used to represent asset size.

Bank age

Age of bank is total periods from the year that bank was established until year 2013.

Efficiency ratio

Efficiency ratio is measured by operating expenses over total operating income,

expressed in percentage. It also called Cost to Income Ratio. It is the financial indicator to measure the impact of operating efficiency on the performance of the banks. The lower the bank's cost to income ratio show more efficient in carrying out its business activities (Parlan, Kristanto, & Nugroho, 2014).

Capital adequacy ratio

Capital adequacy ratio reflects the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures. Bank with good CAR have good profitability. With good capital requirement, commercial banks are able to absorb loans that have gone bad.

Return on assets

Return on Assets is measured by net income divided by total assets and expressed in percentage. ROA is an indicator of how profitable a company is relative to its total assets. ROA refer to the ability of bank management to increase the earning from bank assets.

Return on equity

Return on Equity is measured by net income divided by total equity and expressed in percentage. ROE refers to the effectiveness of management in utilization of the funds contributed by shareholders of a bank.

Net interest margin

Net Interest Margin is measured by the net interest and dividend income to total earning assets and expressed as a percentage. It reflects the cost of bank intermediation services and the efficiency of the bank. The larger net interest margin represents higher the bank's profit and the higher level of stability.

Dummy variable

Dummy variable is an artificial variable created to represent an attribute with two or more distinct categories/levels. Dummy variables assign "0" and "1" to indicate membership in any mutually exclusive and exhaustive category (Skrivanek, 2009). In this study, dummy variables (DUMMY) were applied to see the difference between credit risk crisis (2007-2009) and post credit risk crisis (2010-2014) on credit risk of Chinese commercial banks and Thai commercial banks.

Research methodology

The scope of this study focused on banking sector, especially for Chinese commercial banks listed in Shanghai Stock Exchange (SSE) and Shenzhen Stock Exchange (SZSE), and Thai commercial banks listed in Stock Exchange of Thailand (SET) cover the period from 2007 to 2014. The data for macroeconomic variables of two countries were obtained from the World Bank Website, which covered the period from year 2007 to 2014. Meanwhile, the data for bank-specific variables and credit risk indicators were obtained from published annual reports and statements of each commercial bank that came from the bank website or from SSE, SZSE and SET, which covered the period from year 2007 to 2014.

In this study, Chinese commercial banks who were being listed in SSE and SZSE comprising of 14 Chinese commercial banks, excluding Bank of Beijing and Bank of Nanjing due to the availability of data; and 11 Thai commercial banks who were being listed in SET were investigated. As a whole, there were

totally 25 commercial banks, including 14 Chinese commercial banks that listed in SSE and SZSE, and 11 Thai commercial banks that listed in SET. The research consisted of 200 observations, which use the annually date that covered the period from year 2007 to 2014, 112

and 88 observations respectively for Chinese commercial banks and Thai commercial banks. The data were processed with the regression analysis of both China and Thailand in order to see the size effect on credit risk of commercial banks.

Table 2 The bank covered in the study

No.	Institution name	Year of Est.	Size	Abbreviation
Chinese commercial banks				
1	Bank of Communication Ltd.	1908	Large	BOCM
2	Bank of China Ltd.	1912	Large	BOC
3	Agriculture Bank of China Ltd.	1951	Large	ABC
4	China Construction Bank Corp., Ltd.	1954	Large	CCB
5	Industrial and Commercial Bank of China Ltd.	1984	Large	ICBC
6	China CITIC Bank Corp., Ltd.	1987	Medium	CITIC
7	China Merchants Bank Co., Ltd.	1987	Medium	CMB
8	Ping An Bank Co., Ltd.	1987	Medium	PAB
9	China Industrial Bank Co., Ltd.	1988	Medium	CIB
10	China Everbright Bank Co., Ltd.	1992	Medium	CEB
11	Hua Xia Bank Co., Ltd.	1992	Medium	HXB
12	Shanghai Pudong Development Bank Co., Ltd.	1992	Medium	SPDB
13	China Minsheng Banking Corp., Ltd	1996	Medium	CMBC
14	Bank of Ningbo Co., Ltd.	1997	Small	NBCB
Thai Commercial banks				
15	Siam Commercial Bank Public Co., Ltd.	1904	Large	SCB
16	Bangkok Bank Public Co., Ltd.	1944	Large	BBL
17	Bank of Ayudhya Public Co., Ltd.	1945	Medium	BAY
18	Kasikornbank Public Co., Ltd.	1945	Large	KBANK
19	TMB Bank Public Co., Ltd.	1957	Medium	TMB
20	Krung Thai Bank Public Co., Ltd.	1966	Large	KTB
21	Tisco Bank Public Co., Ltd.	1969	Small	TISCO
22	Kiatnakin Bank Public Co., Ltd.	1971	Small	KKP
23	CIMB Thai Bank Public Co., Ltd.	1998	Small	CIMBT
24	Thanachart Bank Public Co., Ltd.	2002	Medium	TCAP
25	Land and House Bank Public Co., Ltd.	2005	Small	LHBANK

Research results

The researcher investigated the factors related to credit risk of commercial banks during the period from 2007-2014 by using annual data (panel data) in the fixed effect model and random effect model, from 14 selected Chinese commercial banks listed in SSE and SZSE, and 11 Thai commercial banks listed in SET.

The credit risk indicators were risk-weighted assets/total assets (RWA/TA) and non-performing loans ratio (NPL/TL). The result showed that there were multicollinearity problems existed, so this study dropped official exchange rate (EXCH) from the model. By comparing the variables for the credit risk of Chinese commercial banks between the pre-credit risk period of

2007-2009 and post-credit risk period of 2010-2014, China's GDPGR, which represents the country's economic growth, grew at larger pace for an average of 11% during the time before the credit crisis. After the outbreak of credit crisis in Europe, the country's GDP grew by only 8.6% on average. LIR was higher during the time before the credit risk crisis at 6.03%, compared to 6% for after the outbreak of such crisis. Chinese Yuan was stronger after the outbreak of the crisis at 6.37 Yuan per US dollar, from the average of 7.13 Yuan per US dollar during 2007 -2009. Chinese INF during the credit risk crisis was higher at 3.33, which decreased to 3.2 for 2010-2014. For the Bank specific factor, Chinese's LNTA, ROA, CAR and RWA/TA were lower during the time before the credit risk crisis in 2007-2009, in which the average figure of these variables were higher for 2010-2014. However, those of ROE, NIM, EFR and NPL/TL moved in the opposite direction showing the contraction for 2010-2014's average figures.

Through comparing the variables for the credit risk of Thai commercial banks between the pre-credit risk period of 2007-2009 and post-credit risk period of 2010-2014, Thailand's GDPGR, which represents the country's economic growth, grew at larger pace for an average of 3.6% during 2010-2014 due to the negative growth in 2009. After the outbreak of credit risk crisis, the country's GDP showed the recovery in 2010 with the highest growth of 7.8% in 2010, and for average of 3.6% during 2010-2014. Thailand's LIR was also lower during credit risk crisis at 6.07%, compared to 6.74% for after the outbreak of such crisis. Thai baht was stronger after the outbreak of the credit risk crisis

at 31.29 baht per US dollar, from the average of 34.04 baht per US dollar during 2007 -2009. Thailand's INF during the time before the credit risk crisis was lower at 2.3%, which decreased to 2.84% for 2010-2014. For the Bank specific factor, the movements of these factors were all same as those of Chinese commercial banks. Thailand's LNTA, ROA, CAR and RWA/TA were lower during the time before the credit risk crisis in 2007-2009, in which the average figure of these variables were higher for 2010-2014. However, those of ROE, NIM, EFR, and NPL moved in the opposite direction showing the contraction for 2010-2014's average figures.

The results indicated that there were differences in RWA/TA and NPL/TL between Chinese commercial banks listed in SSE and SZSE and Thai commercial banks listed on SET during 2007-2014. The results suggested that macroeconomic factors and bank-specific factors were more significant on explaining the RWA/TA and NPL/TL of Chinese commercial banks listed in SSE and SZSE. Particularly, compared the regression results of RWA/TA and NPL/TL in both countries, the researcher found out that those macroeconomic factors and bank-specific factors were more significant on explaining the NPL/TL of commercial banks than those of RWA/TA. For Chinese commercial banks listed in SSE and SZSE, the results of the regression analysis suggested that GDPGR, INF, ROE and CAR were negatively and significantly related with RWA/TA, while LIR, NIM and DUMMY were positively and significantly related to RWA/TA. Meanwhile, LIR, AGE, LNTA, ROE and NIM were positively and significantly

related with NPL/TL, while ROA, EFR and DUMMY were negatively and significantly related to NPL/TL of Chinese commercial banks during the period. For Thai commercial banks listed in SET, the results from regression analysis indicated that only ROE was negatively and significantly related with RWA/TA. At the same time, LNTA and CAR were positively and significantly related with NPL/TL, while AGE and INF were negatively and significantly related to NPL/TL.

Discussion

There were different factors that related to credit risk of commercial banks in China and Thailand. Both countries have central banks set up to responsible for maintaining monetary stability, preventing and defusing financial crisis in order to maintain financial stability and provide financial services. Banking sector in both countries seemed to have credit risk problem due to the similar characteristics. First, for the banking sector does not have complement credit risk detection mechanism, most of banks not really evaluate security or collateral before examination and approval the loans. And low management for collection loans back on time, it leads more default loans produced in the banking sector. Second, government controls the credit risk system in financial sector. Based on the global economic environment, macro policy and industry policy adjusted all the time, it also exposure more risk in banking sector. However, for the state owned commercial banks normally can get the specific guarantee from country's government, it lead more bad loans there.

Third, the borrowers (enterprises) do not have the consciousness of risk prevention, some of enterprises have insufficiency operation ability, cannot adjust themselves to accommodate the global economic environment. And the top management of both banks and enterprises have serious corruption problem. Finally, they transfer the credit risk back to banking sector.

However, it is important to notice that LIR, ROE, NIM and DUMMY were significantly related to credit risk of Chinese commercial banks, however, except ROE has negative and significant relationship with RWA/TA, the other three independent variables were insignificant related to credit risk of Thai commercial banks. It is also important to notice that regression results of AGE have different results on NPL/TL of Chinese commercial banks and Thai commercial banks. LNTA of all commercial banks coved in this study showed positive coefficient relationship with NPL/TL, it suggested that the large banks carry on more non-performing loans than others size of banks. ROE of all commercial banks coved in this study showed negatively coefficient relationship with RWA/TA. It suggested that banks with the effective management in utilization of the shareholders' funds will have lower risk-weighted assets/total assets ratio. Those factors were not that sensitive related to credit risk of Thai commercial banks, there were some reasons listed as follow: first, the credit risk of commercial banks not only depends on bank policy, also Thailand royal culture and history is another important element, some risk monitory policies were more difficult to implement in the banking sector. Second, the stock exchange market can help regular the

commercial banks activities to be more effective, and monitor risk to accelerate the commercial banks development. The stock return is a basic indicator for stock exchange market, but the credit risk of Thai commercial banks is not that significant correlated with stock returns. Stock returns should be negatively related to the banks non-performing loan ratio, and the capital adequacy ratio is positive correlation, but the correlation is not significant in Thailand banking sector.

Recommendations

There are some recommendations for the banking sector and country policy maker of banks. For banking sector, the finding suggested that bank management plays an important role in shaping its credit risk management rather than macroeconomic factors. The improvement of banks' performance and efficiency will lead to well managed on credit risk. Banks need to hire the one who has high experience and qualification on credit risk management, and need to consistently train their employees to be more professional as well. As the large banks play critical role in country's economic development, larger size of banks likely to have higher non-performing loan ratio in both Chinese and Thai commercial banks. Therefore, Assets Management Company should be established for assisting the commercial banks to control the bad loans. Also, the descriptive statistic showed the differences between credit risk crisis and post-credit risk crisis. The study recommend the banks must recognize their problem loans more rapidly and must adapt and maintain their efficiency performance and risk

management as it will sustain banks for the worst scenarios in economic conditions. For policy maker of banks, the researcher suggested that higher lending interest rate is a trigger of higher credit risk in the commercial banks. The study recommends that banks should keep lending interest rate as low as possible to make sure that repayment is punctual and affordable for the creditors. The policy maker of banks need to fixed lending interest rate is considered for huge sum of money so as to reduce the bad loans. Further, the policy maker can push the university colleges of the country added "credit risk management course" on their curriculum to accelerate effective credit risk management development.

Suggestion for future research

This research investigated the macroeconomic factors and bank-specific factors that related with credit risk of commercial banks. Thus, the result of this study can apply for the commercial bank industry only and thus may not be used in other types of financial institutions. Therefore, the future research is recommended to study the same dependent variables of other financial institutions such as government banks, insurance companies, and others to further identify the generalization of the study. The researcher collected the data from the secondary source for Chinese commercial banks and Thai commercial banks during the period of 2007-2014, and thus the further research should be applied to commercial banks in other locations or even different period of times. Further, this research has only

four macroeconomic factors and eight bank specific factors affecting the bank's credit risk, in which there might be more factors affecting the credit risk that are

not in the focus of this study. The researcher suggested that the further research should also study.

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Appendix

Summaries of the variables

Variable	Notation	Measurement	Research support
Independent variables			
		Macroeconomic factors	
GDP growth rate	CDPGR	Annual percentage growth rate of GDP at market prices based on constant local currency	Warue, (2013); Beck, et al., (2013); Thiagarajan, et al.,(2011); Derbali,(2011); Ali& Daly, (2010).
Lending interest rate	LIR	Bank rate that usually meets the short-and medium-term financial needs of the private sector	Warue, (2013); Beck, et al., (2013); Washington, (2014).
Exchange rate	EXCH	Official exchange rate	Washington, (2014)
Inflation rate	CPI	Consumer Price Index	Washington, (2014); Ongore & Kusa (2013); Al-wesabi & Ahmad, (2013)
		Bank-specific factors	
Bank size	LNTA	Natural logarithm of total assets	Warue, (2013); Al-wesabi & Ahmad, (2013)
Age of bank	AGE	Total amounts period from bank's establishment year until year 2013	Stephanou & Mendoza, (2005)
Return on assets	ROA	Net Income/Total Assets	Pestova & Mamonov, (2012)
Return on equity	ROE	Net Income/Total Equity	Shingjergji, (2013); Pestova & Mamonov, (2012);
Net interest margin	NIM	Net Interest and Dividend Income/Total Earning Assets	Pestova & Mamonov, (2012)
Efficiency ratio	EFR	Operating expense/operating income	Vatansever & Hepsen, (2013); Pestova & Mamonov (2012)
Capital adequacy ratio	CAR	(Tier 1 Capital + Tier 2 Capital)/Risk Based Assets	Vatansever & Hepsen, (2013); Ongore & Kusa (2013); Shingjergji (2013)
Dependent Variables			
		Credit risk indicators	
Non-performing Loans Ratio	NPL_TL	Non-performing Loans/Total Loans	Beck, et al., (2013); Warue, (2013); Ongore and Kusa (2013); Al-wesabi & Ahmad (2013)
Risk-weighted Assets	RWA_TA	Risk-weighted Assets/Total Assets	Zribi & Boujelbene, (2011); Thomson, (1989); Leslie & Avramova, (2012); Al-wesabi & Ahmad, (2013)

Descriptive statistics for Chinese commercial banks (Year 2007-2014)

Variables	Obs.	Minimum	Maximum	Mean	Std. Dev.
GDPGR	112	7.40	14.20	9.5000	2.06899
LIR	112	5.30	7.50	6.0125	.69127
EXCH	112	6.14	7.61	6.6588	.45923
INF	112	-.70	5.90	3.2500	2.00710
AGE	112	10.00	106.00	37.0000	29.46123
LNTA	112	11.23	16.84	14.8167	1.19588
ROA	112	.13	1.49	1.1082	.23947
ROE	112	3.80	111.61	20.7656	9.50119
NIM	112	1.95	4.18	2.7103	.37177
EFR	112	23.12	46.49	34.7130	4.81237
CAR	112	5.77	21.00	11.7939	1.97574
RWA_TA	112	47.28	72.91	59.2756	6.47739
NPL_TL	112	.36	23.57	1.4266	2.26497

Comparing means for Chinese commercial banks (Year 2007-2009 and 2010-2014)

Variables	Obs.		Minimum		Maximum		Mean		Std. Dev.	
	Year 07-09	Year 10-14								
GDPGR	42	70	9.20	7.40	14.20	10.60	11.0000	8.6000	2.29163	1.24993
LIR	42	70	5.30	5.60	7.50	6.60	6.0333	6.0000	1.04966	.33708
EXCH	42	70	6.83	6.14	7.61	6.77	7.1300	6.3760	.34709	.22671
INF	42	70	-.70	2.00	5.90	5.40	3.3333	3.2000	2.92213	1.18322
AGE	42	70	10.00	13.00	101.00	106.00	34.5000	38.5000	29.60574	29.48532
LNTA	42	70	11.23	12.47	16.28	16.84	14.3126	15.1191	1.24616	1.06321
ROA	42	70	.13	.64	1.49	1.47	.9843	1.1826	.28603	.16937
ROE	42	70	3.80	14.42	111.61	26.65	21.6250	20.2500	15.20736	2.66167
NIM	42	70	1.95	2.07	4.18	3.48	2.8174	2.6460	.47054	.28215
EFR	42	70	29.84	23.12	46.49	43.41	37.5060	33.0373	4.17254	4.39472
CAR	42	70	5.77	9.88	21.00	16.20	11.2533	12.1183	2.63634	1.36570
RWA_TA	42	70	47.28	47.40	72.91	72.31	55.8836	61.3109	5.83366	6.00566
NPL_TL	42	70	.36	.38	23.57	2.03	2.2814	.9137	3.54237	.29126

Independent sample T-test results for Chinese commercial banks

	Period	N	Mean	Std. Deviation	t	Sig.
RWA_TA	2007-2009	42	55.8836	5.83366	-4.680	0.000
	2010-2014	70	61.3109	6.00566	-.4.714	0.000
NPL_TL	2007-2009	42	2.2814	3.54237	3.222	0.002
	2010-2014	70	0.9137	0.29126	2.497	0.017

Descriptive statistics for Thai commercial banks (Year 2007-2014)

Variables	N	Minimum	Maximum	Mean	Std. Dev.
GDPGR	88	-2.30	7.80	2.9000	3.20535
LIR	88	5.90	7.10	6.7250	.46020
EXCH	88	30.49	34.52	32.3238	1.48911
INF	88	-.80	5.50	2.6375	1.70005
AGE	88	2.00	110.00	46.3182	29.06574
LNTA	88	10.40	14.83	13.2530	1.17125
ROA	88	-6.40	3.26	1.1399	1.01242
ROE	88	-95.60	277.45	15.6043	32.62023
NIM	88	.76	5.73	3.2283	.84573
EFR	88	32.73	152.50	53.4428	14.71837
CAR	88	1.48	24.81	14.9749	2.60039
RWA_TA	88	32.95	92.95	66.7614	12.92440
NPL_TL	88	1.14	16.10	4.4203	3.24664

Comparing means for Thai commercial banks (Year 2007-2009 and 2010-2014)

Variables	N		Minimum		Maximum		Mean		Std. Dev.	
	Year 07-09	Year 10-14								
GDPGR	33	55	-2.30	.10	5.00	7.80	1.7333	3.6000	3.07608	3.10078
LIR	33	55	6.00	5.90	7.10	7.10	6.7000	6.7400	.50436	.43572
EXCH	33	55	33.31	30.49	34.52	32.48	34.0400	31.2940	.53279	.72407
INF	33	55	-.80	1.90	5.50	3.80	2.3000	2.8400	2.61283	.70674
AGE	33	55	2.00	5.00	105.00	110.00	43.8182	47.8182	29.26757	29.10968
LNTA	33	55	10.40	11.04	14.39	14.83	12.9197	13.4540	1.21275	1.10852
ROA	33	55	-6.40	.20	3.26	2.20	.9497	1.2540	1.52826	.48162
ROE	33	55	-95.60	2.20	277.45	91.80	17.2555	14.6136	51.53153	11.74971
NIM	33	55	.76	1.71	5.73	5.00	3.3618	3.1482	1.01617	.72321
EFR	33	55	32.73	35.84	152.50	75.83	59.5442	49.7820	19.79631	8.96563
CAR	33	55	1.48	12.41	19.80	24.81	14.0739	15.5155	3.37287	1.83281
RWA_TA	33	55	36.93	32.95	92.95	90.00	65.7945	67.3415	13.48234	12.66841
NPL_TL	33	55	1.14	1.20	16.10	8.30	6.5294	3.1549	4.25728	1.37569

Independent sample T-test results for Thai commercial banks

	Period	N	Mean	Std. Deviation	t	Sig.
RWA_TA	2007-2009	33	65.7945	13.48234	-0.541	0.590
	2010-2014	55	67.3415	12.66841	-0.533	0.596
NPL_TL	2007-2009	33	6.5294	4.25728	5.441	0.000
	2010-2014	55	3.1549	1.37569	4.417	0.000

T-test results for RWA_TA (Year 2007-2014)

	Group	N	Mean	Std. Deviation	t	Sig.
RWA_TA	C	112	59.2756	6.47739	-5.338	0.000
	T	88	66.7614	12.92440	-4.965	0.000

T-test results for NPL_TL (Year 2007-2014)

Group		N	Mean	Std. Deviation	t	Sig.
NPL_TL	C	112	1.4266	2.26497	-7.670	0.000
	T	88	4.4203	3.24664	-7.357	0.000

Correlation analyses for Chinese commercial banks (Year 2007-2014)

	RWA_TA	NPL_TL	GDPGR	LIR	EXCH	INF	AGE	LNTA	ROA	ROE	NIM	EFR	CAR	DUMMY
RWA_TA	1.000													
NPL_TL	-.267**	1.000												
GDPGR	-.399**	.362**	1.000											
LIR	-.109	.271**	.689**	1.000										
EXCH	-.476**	.367**	.940**	.464**	1.000									
INF	-.149	.411**	.411**	.456**	.313**	1.000								
AGE	-.024	-.065	-.065	-.021	-.074	-.025	1.000							
LNTA	.081	-.314**	-.314**	-.107	-.361**	-.127	.576**	1.000						
ROA	.170	-.319**	-.319**	-.022	-.394**	.025	.139	.378**	1.000					
ROE	-.220*	.190*	.190*	.190*	.163	.089	-.019	.081	.110	1.000				
NIM	.0115	.275**	.275**	.246**	.290**	.543**	-.306**	-.453**	.215*	.050	1.000			
EFR	-.190*	.338**	.338**	-.016	.435**	-.061	-.272**	-.462**	-.514**	-.083	.145	1.000		
CAR	-.101	-.084	-.084	.065	-.142	.085	.286**	.131	.564**	-.184	.262**	-.312**	1.000	
DUMMY	.407**	-.294**	-.564**	-.023	-.798**	-.032	.066	.328**	.403**	-.070	-.224*	-.452**	.213*	1.000

*. Correlation is significant at 5% level.

**. Correlation is significant at 1% level.

Correlation analyses for Thai commercial banks (Year 2007-2014)

	RWA_TA	NPL_TL	GDPGR	LIR	EXCH	INF	AGE	LNTA	ROA	ROE	NIM	EFR	CAR	DUMMY
RWA_TA	1.000													
NPL_TL	.017	1.000												
GDPGR	.047	.028	1.000											
LIR	-.013	.012	.094	1.000										
EXCH	-.042	.495**	-.233**	-.189	1.000									
INF	.026	-.032	.435**	.442**	-.365**	1.000								
AGE	-.068	.028	-.006	.010	-.056	-.009	1.000							
LNTA	-.007	.009	.000	.064	-.197	-.002	.689**	1.000						
ROA	.146	-.316**	.015	-.008	-.152	.048	.225*	.075	1.000					
ROE	-.130	.078	.019	.073	.026	.042	-.061	-.034	.537**	1.000				
NIM	.031	-.021	-.005	-.153	.110	.025	.243*	.015	.276**	.200	1.000			
EFR	-.046	.419**	.025	-.027	.312**	-.006	-.266*	-.215*	-.855**	-.462**	-.111	1.000		
CAR	-.082	-.062	-.029	-.130	-.208	-.096	.291**	.185	-.090	-.546**	.245*	.028	1.000	
DUMMY	.058	-.506**	.284**	.042	-.898**	.155	.067	.223*	.146	-.039	-.123	-.323**	.270*	1.000

*. Correlation is significant at 5% level.

**. Correlation is significant at 1% level.

Regression results for all commercial banks

Independent variables	Dependent variables			
	Chinese commercial banks		Thai commercial banks	
	RWA_TA (Model 1)	NPL_TL (Model 2)	RWA_TA (Model 3)	NPL_TL (Model 4)
Constant				
Coefficient	52.29479	-7.529830	27.7131	-31.7934
P-value	(0.0165)**	(0.0064)***	(0.6956)	(0.0537)*
GDPGR				
Coefficient	-0.81362	-0.023273	-0.08851	0.06931
P-value	(0.0357)**	(0.7628)	(0.7943)	(0.3751)
LIR				
Coefficient	1.387924	0.366290	1.470857	0.414583
P-value	(0.0942)*	(0.0398)**	(0.5103)	(0.4192)
INF				
Coefficient	-1.06077	-0.072317	-0.52219	-0.26587
P-value	(0.0001)***	(0.1680)	(0.4338)	(0.0853)*
AGE				
Coefficient	0.052622	0.009347	-2.01697	-1.4653
P-value	(0.2914)	(0.0520)*	(0.115)	(0.0000)**
LNTA				
Coefficient	-0.46508	0.405371	8.331494	7.319017
P-value	(0.7039)	(0.0030)***	(0.1721)	(0.0000)**
ROA				
Coefficient	1.844876	-4.314693	2.817401	0.025744
P-value	(0.5065)	(0.0000)***	(0.2293)	(0.9616)
ROE				
Coefficient	-0.07983	0.200388	-0.10725	0.015265
P-value	(0.0437)**	(0.0000)***	(0.0267)**	(0.1645)
NIM				
Coefficient	8.023646	1.288324	2.710564	-0.23625
P-value	(0.0002)***	(0.0009)***	(0.1357)	(0.5682)
EFR				
Coefficient	-0.06012	-0.055116	0.07121	0.031467
P-value	(0.6323)	(0.0169)**	(0.6319)	(0.3576)
CAR				
Coefficient	-0.70189	0.028876	-0.27295	0.307646
P-value	(0.008)***	(0.5889)	(0.5593)	(0.0053)***
DUMMY				
Coefficient	4.781988	-0.704736	6.063504	-1.59382
P-value	(0.0002)***	(0.0043)***	(0.2059)	(0.1482)
Observation	112	112	88	88
R squared	0.819378	0.880444	0.764410	0.803316
Hausman Test (Prob)	1.000 (>0.05)	1.000 (>0.05)	0.0000	0.0000
F statistic (Prob)	0.0000	0.0000	✓	✓
FE Model	✓	✓		
RE Model				

***, ** and * indicate significance level at 1%, 5% and 10% respectively.

FIRM-LEVEL FACTORS AFFECTING DIVIDEND PAYOUT IN LOGISTICS SECTOR IN CHINA AND THAILAND

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Abstract

Objective – The objective of this study was in order to the listed firms in logistics sector in China and Thailand can be better to understanding what firm-level factors affecting dividend payout of listed firms in logistics sector, how each factor affects the dividend payout of listed firms in logistics sector, and have any differences in factors affecting dividend payout of listed firms in the logistics sector between the two countries. In addition, the existing shareholders of the listed firms in the logistics sector in China and Thailand that will able to better understand the determinants of the dividend payout.

Methodology – A quantitative study was adopted for collecting available second data from China finance information and SETSMART database of Thailand. The study uses 25 listed firms and 7 listed firms in logistics sector of China and Thailand during 2006-2014 as samples respectively, using the methods of the pooled least squares (Pooled OLS), pooled estimated generalized least squares (Pooled EGLS), seemingly unrelated regression model (Cross-section SUR) and T-test for analyzing data.

Finding – There was difference between the dividend payout of firms in the logistics sector of China and Thailand during 2006-2014. The result shows all firm-level factors significant in dividend payouts in logistics sector in China and the others factors significant in dividend payouts in logistics sector in Thailand except ownership concentration (CONC).

Keywords:

Dividend payout, Firm-level factors, Logistics sector, Factors

Introduction

Through many researchers' empirical studies founds the higher dividend payout of firm should be to prove that the firm has a higher profit (Koul and Orsag, 2012; Bebczuk, 2004; Harry et al., 2006; Komrattanapanya and Suntraruk, 2013; Shi and Ouyan, 2004).

A leading construction firm from Thailand is seeking investment in building of the Dawel Deep-Sea Port. That is important circulation port for Thailand and the others country of ASEAN. This large project will develop a new shipping route which is greatly needed to maintain a thriving regional route. It will provide the logistics industry with an excellent route for the import and export of goods' from the countries of ASEAN (Chinachart, 2012). In addition, China is the most powerful economy emerging from that region in Asia (Worldfolio, 2014). With the expansion of its market scale and strong purchasing power, a new competitive stage is created for China. Under the environment a large investment opportunity is created in logistics industry of the China free trade area.

Based on the empirical studies founds each industry has related with different results of dividend payout (Gill et al., 2010; Harry et al., 2006). Therefore, this paper studies the firm level factors as profitability (Koul and Orsag, 2012; Gill et al., 2010; Anil and Kapoor, 2008), sales growth (Samuel and Marfo-Yiadom, 2011; Kania and Bacon, 2005; Kim and Gu, 2009; Al-Kuwari, 2009), debt level (Chen et al., 2005; Gugler and

Yurtoglu, 2003; Stacescu, 2006; Bena and Hanousek, 2006; Kowalewski et al., 2007), ownership concentration (Harada and Nguyen, 2011; Maury and Pajuste, 2002), the scale of firm (Warfield et al., 1995; Klein 2006; Jensen and Mecking, 1976; Holder et al., 1998; Komrattanapanya and Suntraruk, 2013; Fanta et al., 2013; Haidir and Utama, 2011), liquidity (Anil and Kapoor, 2008; Kim and Gu, 2009; Al-Shubiri, 2011), investment opportunities (Kim and Gu, 2009; Komrattanapanya and Suntraruk, 2013; Al-Shubiri, 2011; Anil & Kapoor, 2008) respectively, in which affected the dividend payout in logistics sector of China and Thailand. Analysis of dividend of the logistics sector in China and Thailand, trying to use the method of mathematical statistics to analyze firm-level what factors influence the dividend payout decision of these factors plays a great role. Finally, according to the make dividend policy decision and exiting investors of listed firms better to understand determine of the dividend payout while to gives the feasible suggestions.

Literature review

Profitability

Baker et al. (1985) conducted a questionnaire survey by 318 listed corporations on the New York stock exchange and found: in the manufacturing, wholesale and retail trade and public utilities in three industries, the profitability is most important factor influencing dividend policy is the expectation future earnings.

Shi and Ouyang (2004) was a study to show how a high cash dividend in the firm of XiNing Special Steel was used. They made a decision to use a series of convertible bonds as a financial decision for refinancing. This study showed how utilizing a high cash dividend in China's securities market could be used by XiNing as a method through a special high cash dividend as an adjustment of return on net assets as a percentage to achieve a high dividend and meet bond requirements required by the regulatory authority of China. (Kong, 2003; Yuan and Su, 2004) arrived at the same conclusion.

Bebczuk (2004) studied dividend policy of listed firms in Argentina from 1996 to 2002 and confirms that profitability can definitely have a positive effect on dividend policy.

Kozul and Orsag (2012) used the method of cross section regression to study firm-level factors influencing dividend policy in 5 European countries, in which are Australia, Japan and United States of America respectively. The empirical studies found that profitability was statistically significant in each analyzed country with a positive effect on dividend level.

Gill et al. (2010) did an empirical study and found each industry has a different dividend policy. For example the analysis in the manufacturing industry in US showed that profitability had a negative effect dividend payout. Harry et al. (2006) empirical studies also confirmed the same results. But the Anil

and Kappor (2008) empirical study found there was no relationship between them.

Sales growth

The sales growth rate is an important index to measure the condition of business and market share forecasting ability, enterprise management and business development trends, it also an important prerequisite for enterprises to expand the capital increment and stock capital. When the index is high, it will indicate good growth and allow the enterprise to market itself faster and better to its prospects. A high index is required in order for a company to secure operating funds for future development and allow funds be retained as internal cash to cover the future funds demand needed for growth and development (Koul and Orsag, 2012, Gill et al., 2010; Samuel and Marfo-Yiadom 2011). It is also used as a strong indicator the company can use to make a decision on the size of their dividend.

Komrattanapanya and Suntrauk (2013) using Tobit regression analysis did an empirical study that shows the factors that influence dividends payouts in Thailand. In this this study he found that too much growth could have a negative effect on dividends from his analysis results. Koul and Orsag (2012); Gill et al. (2010); Samuel and Marfo-Yiadom (2011) also confirms that excessive growth could have a negative effect on dividend policy.

The Kania and Bacon (2005) has the view that higher sales growth is an indicator that the company can pay

higher dividends. Others in their empirical studies confirm that the relationship between higher sales growth and ability to pay higher dividends is insignificant. (Kim and Gu, 2009; Al-Kuvari, 2009; Anil and Kapoor, 2008).

Debt

Lv and Wang (1999) using the factor analysis method listed the payment data of cash dividends of all 372 listed corporations listed on the Shanghai and Shenzhen exchanges for the years 1996-1998 were studied. The results show that the shareholder's equity ratio and dividend payment is directly proportional to the level of state-owned shares and legal person shares: when the controlling shares were state owned the dividend payouts were adversely high and when the controlling portion was legal persons the dividends were adversely low. The payment of poorly performing firms tended to adopt long-term debt as a way to pay stock dividends in order to meet the demands of shareholders.

An empirical study by Chen et al. (2005) confirms the debt positive effect dividend policy. Contrarily, the study results confirm the debt and dividend policy has a negative correlation (Gugler and Yurtoglu, 2003; Stacescu, 2006; Bena and Hanousek, 2006; Kowalewski et al., 2007).

Kozul and Orsag (2012) view the use of debt control as a reason to decrease dividends distributed to shareholders and allow the management to retain more cash for the future operation and retirement of debt.

Ownership concentration

In the Wei (2000) empirical study of 1167 samples from 389 companies, showed that the observed value of listed companies in China's dividend policy, were ownership structure and agency problems. The study found that the proportion of state shares and legal person shares proportion was higher and had the higher probability of a listing corporation dominating the dividend; state shares and legal person shareholders preferred cash dividends, stock dividends and the circulation of stock as the shareholder preference.

Yuan (2001)'s study on the Shanghai stock exchange and Shenzhen stock exchange A share list of firms from 1994 to 1997 shows the annual dividend plan by regression analysis. The results indicated that dividend distribution impacted listed companies' as a special ownership structure and governance structure in China.

The Hu (2002) study found that the proportion of shares in circulation had a large influence on dividend distribution. If the proportion of shares in circulation was small, the more possible it was to pay dividends, and the larger proportion of tradable shares, the more inclined a firm was to distribute stock dividends. In addition, when the company had good investment projects or was in a high growth period, the firm would trend to distribute stock dividends or no dividend. When the company needed external financing, they would take the cash dividend.

Kozul and Orsag (2012) view the ownership concentration as an agency problem that the small shareholders' rights can be ripped away from them. The study reportedly shows that the ownership concentration can have a negative effect on dividend policy. Maury and Pajuste (2002), Harada and Nguyen (2011), Bena and Hanousek, (2006) through their empirical study also confirms the same results.

The scale of the firm

The explanatory variable firm size is defined as log of beginning year assets and has statistics significant with a dependent variable by Warfield et al. (1995) and Klein (2006).

Jensen and Mecking (1976) put forward the agency theory. The shareholders cannot know the specific operations of the firm, but they can through dividend distributions see the financial situation of the firm. And then in order to control agency costs, larger firms prefer to pay dividends.

The Holder *et al.* (1998) empirical study results showed that the larger firms have more ability to get capital from external financing than do small firms. It depends on the size of the firm, and defined as a logarithm of total assets. It shows that the bigger company will be able to obtain financing much easier than the small company. Therefore the possibility of that company issuing a high priced dividend is much greater. They point out that the larger firms have the ability to use lower costs than smaller firms to get access to market capital easier, and

obtain funds from financing outside. Therefore, large firms prefer to pay out larger dividends than smaller firms.

Komrattanapanya and Suntrauk (2013) is an empirical study that shows factors influencing dividend payouts in Thailand and uses the natural logarithm of current market capitalization as a size of the firm to study the relationship between dividend payouts. It shows in its results that it confirms that the size of the firm significantly influences the dividend payouts of Thai listed firms.

Different sizes of firms have different dividend payouts. Fanta et al. (2013); Haidir and Utama, (2011) defined the size as logarithm (log) of bank's total assets. The empirical investigation confirms it has a high significance with explained variables. In addition, Wang et al. (2011) empirical stock dividend policy in China found that using the natural log of total assets as a scale for a firm to use as a size of firm to study and got the result that indicates there is a highly negative significance with dividend policy.

Liquidity

Jensen (1986) put forward a free cash flow hypothesis, also known as the theory of the agency cost of free cash flow. It indicated a financing structure that through the constraint of cash flow, the manager would be restrained from spending more cash flow on unnecessary expenses and thus reduce the manager's control right. That happened and provided a positive effect for the firm, and thus affected a firm's value.

Alli et al. (1993) through empirical analysis found that dividends cannot totally convey all the information about a company's fiscal expenditures. If there is a slack period where finances are negative there may be a correction with the dividend payout. The empirical data also reveals that the higher the cash flow, the lower the systematic risk of the firms. This is a signal of high quality when it comes to paying out dividends.

The higher a firm's liquidity ratio is the more cash the firm has to distribute to the shareholders and operation for investment. When assets liquidity is not good, the company will choose to not pay out cash dividends, which can reduce the assets liquidity of the company, and the affect the operation of the company (Kania and Bacon, 2005; Adil et al. 2011).

Anil and Kapoor, (2008) empirical investigation defined dividend and liquidity as a positive correlation. But other research studies found that a company's liquidity can have a negative effect on dividend payouts (Kania and Bacon, 2005; Adil et al., 2011). These studies showed no relationship between liquidity and dividend payouts (Kim and Gu, 2009; Al-Kuwari, 2009; Gill et al., 2010; Al-Shubiri, 2011; Samuel and Marfo-Yiadom, 2011).

Investment opportunities

When the company's investment opportunities are more, but disposable cash flow is relatively small, the shareholders can tolerate a lower cash

dividend payment rate (Jensen and Meckling, 1976).

In order to increase investment, the firm needs to control dividend payout and retain internal finance capabilities (Rozeff, 1982).

Masulis and Trueman (1988) put forward many opportunities for a firm's profit, it will not pay dividends and to use up all the internal funds, but mature firms will pay dividends, because investment opportunities have not exhausted all the internal funds. The firm in appropriate circumstances will be to retain earnings for investment opportunity.

In the Chen and Zhao (2000) study using multiple regression analysis, single factor analysis, classification and statistics analysis, results showed that a firms' stock price and its cash and stock dividend had a definite positive correlation.

With the strong investment opportunities in the market place, a firm has to make sure their internal financing is utilized as well. Otherwise the firm may be forced to abandon these internal projects when there is a fund shortage. At the same time, if a firm holds on to enough of its cash flow, it can be used to develop more profitability with its investment opportunities (Khaoula and Edith, 2007).

Through Komrattanapanya and Suntrauk (2013), Kim and Gu (2009) studies found that investment opportunities can have a negative effect on dividend policy. As the firm is presented with more investment opportunities it may payout less in dividends. At the same time if the firm has fewer investment opportunities it will

payout more in dividends. But the Al-Shubiri (2011) study found that investment opportunities produce a positive effect on dividend policy in Jordanian industrial markets.

The Anil and Kapoor (2008) and Gill *et al.* (2010) study put forward that the investment opportunities are not an important factor affecting dividends in the study of the Indian information technology sector.

Dividend payout

The researchers (Miller and Modigliani, 1961) assuming a market has perfect

performance, information symmetry on taxes and such. Under a perfect market, shareholders should receive the benefit from dividends and or capital gains. But there is a state of operation where shareholders and the firm cannot operate in a perfect market for real.

Conceptual framework and hypothesis

Based on the literature review, the firm-level factors affect dividend payout or not, a conceptual framework is designed by the author.

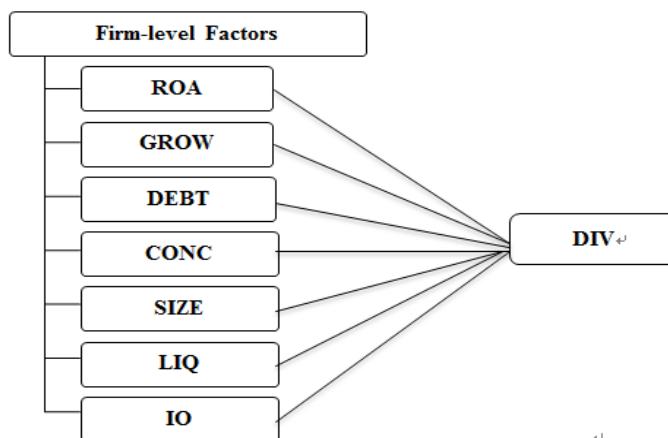


Figure 1 The framework of the research

Based on the objectives of this study, there have 3 hypotheses:

H1. The profitability (ROA), sales growth (GROW), debt (DEBT), ownership concentration (CONC), the scale of firm (SIZE), liquidity (LIQ) and

investment opportunity (IO) affect dividend payout in listed logistics firms in China.

H2. The profitability (ROA), sales growth (GROW), debt (DEBT), ownership concentration (CONC), the

scale of firm (SIZE), liquidity (LIQ) and investment opportunity (IO) affect dividend payout in listed logistics firms in Thailand.

H3. There are differences in factors affecting dividend payout of listed firms in logistics sector between China and Thailand.

Methodology

Sampling strategy and measurements of variables

Table 1 Selection criteria in the logistics sector for the China samples

Criterion	China	Number of listed firms
The firms listed that are in the Traffic, Transport and Warehousing industries.		58
Listed firms for the management and operation of high speed roads.	(-11)	
Listed Airline firms.	(-6)	
Listed firms for rental cars.	(-2)	
Listed firms for passenger transport.	(-1)	
Listed firms for the management of highways and bridges.	(-1)	
Firms listed for the management and operation of railways.	(-3)	
Listed firms for management and operation of airport	(-2)	
Final sample (goods transportation & logistics)		32

Table 2 Selection criteria in the logistics sector for Thailand samples

Criterion	Thailand	Number of listed firms
Listed firms in the transportation & logistics industry.		18
Listed firms for passenger service.	(-3)	
Airline listed firms.	(-3)	
Listed firms for the management and operation of airports.	(-2)	
Listed firms for shipbuilding.	(-1)	
Listed firms for management and operation of highways.	(-1)	
Final sample (goods for transportation & logistics).		8

Based on the available second data from China financial information and SETSMART database, the study defined the samples as follows:

Sample (1): consists of 25 listed firms in the logistics sector in China during 2006-

2014. The total annual data is 225 firms in the logistics sector in China.

Sample' (2): consists of 7 listed firms in the logistics sector in Thailand during 2006-2014. The total annual data comes from 63 firms in the logistics sector in Thailand.

The Model is the equation for study of firm-level factors affecting dividend

payouts in logistics sector in China and Thailand.

$$DIV_{i,t} = \alpha + \beta_1 ROA_{i,t} + \beta_2 GROW_{i,t} + \beta_3 DEBT_{i,t} + \beta_4 CONC_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LIQ_{i,t} + \beta_7 IO_{i,t} + \epsilon_{i,t}$$

Where i means individual listed firms in the logistics sector; t means the natural logarithm of the current market capitalization time t (from 2006 to 2014); α means the intercept of the regression

equation in the logistics sector; ϵ means the error term of the regression equation in the logistics sector; β_n means coefficients of independent variables, $n=1, 2, 3, \dots, 8$;

Table 3 The model's measurements of variables

Symbols	Description	Measurement
DIV	Aggregate dividends over value of total assets (in percentage)	Dividends payable/ Total assets
ROA	Return on Assets refers to a firm's profitability (in percentage).	Net Income/ Total assets.
GROW	Sales growth from 2006 to 2014 in China. (in percentage). Sales growth from 2006 to 2014 in Thailand. (in percentage).	(Net sales for current period-Net sales for the last period) / Net sales for the last period.
DEBT	Total debt ratio of firm (in percentage).	Total liability / Total assets.
CONC	The shareholding ratio of the largest shareholder of firm.	Percentage of ownership of largest shareholder.
SIZE	The scale of the firm.	The log of total assets.
LIQ	Current ratio (in times).	Total Current Assets/ Total Current Liabilities.
IO	Investment opportunities (in times).	Price to Book Ratio =The last stock trading price/ Book value per share.

Data analysis

The study uses methods of descriptive statistics and inferential statistics to analyze respectively.

For method of descriptive statistics, first, the study uses the tables of minimum, maximum, median, mean and standard deviation to describe the statistics of the

independent variables that identify profitability, sales growth, debt, ownership concentration, the scale of the firm, liquidity, investment opportunities and dependent variable that show the dividend payout ratio of listed firms in logistics sector in China and Thailand. Secondly, using the table and chart this study compares the dividend levels between the 2 countries.

For method of inferential statistics, first, the study uses the univariate comparison by T-testing to see whether the dividend payout ratio of China and Thailand are equal. Secondly, using the Pearson product-moment correlation coefficient (Pearson' r) to test and determine linear correlation with the dependent variable ratio of dividends to total assets (DIV) and independent variables which is return on assets, sales growth, debt ratio, ownership concentration of shareholding ration of the largest shareholder, the scale

of firm, the current ratio and investment opportunities. Thirdly, for the research objectives of this study it will use the methods of linearly regression to run the model with the panel data. The model will run linear regression 2 times with 2 countries, using the methods of the pooled least squares (Pooled OLS) to run model for China, the methods of pooled estimated generalized least squares (Pooled EGLS) and seemingly unrelated regression model (Cross-section SUR) to run model for Thailand.

Data analysis and results

Descriptive statistics

Table 4 Descriptive statistics of sample in China

Variables	Min	Max	Median	Mean	Sta.Dv.	Observation
DIV (%)	0	11.71	0.01	0.2955	0.97516	225
ROA (%)	-60.70	120.21	6.26	6.8304	12.09342	225
GROW (%)	-63.37	3116.79	10.00	33.7629	217.03359	225
DEBT (%)	5.45	931.71	47.21	55.3671	69.10257	225
CONC (%)	6.93	79.64	41.90	41.0320	13.12657	225
SIZE	7.67326	10.97442	9.699295	9.692209	56.22058	225
LIQ (Times)	0.0091	55.7406	1.0485	1.650252	4.0149544	225
IO (Times)	-39.1053	132.1962	2.0514	2.289066	10.5043933	225

Following the Table 4 shows the first variable is the dependent variable ratio of dividends to total assets (DIV). The minimum value is 0, maximum value is 11.71, medium value is 0.01, mean value is 0.2955 respectively. This shows that over past 10 years, China's logistics sector has been in a state of rapid growth, but showing many problems at the same time. For example, the firm's organization may be low or be in a poor financial situation. Some firms will make a dividend policy but not paid dividends. So some firms making dividend policy

but not paying dividends to shareholders leads to a much larger difference in their growth from the companies that make dividend payouts to its' shareholders.

Under the current logistics environment some organizations may not complete their organizational duties properly and with the rapid growth find that they have to exit the business because they failed to establish themselves correctly. Some firms go together quickly and then find business coming in to slow making it difficult to survive. This along with many

firms and strong competition in the logistics sector can cause there to be a higher standard of deviation and the huge distance between minimum value and maximum value of ROA (return on assets), GROW (sales growth), DEBT (debt ratio), CONC (ownership concentration as shareholding ratio of the largest shareholder of firm), SIZE (the

scale of firm), LIQ (the current ratio) and IO (investment opportunities) as explanatory variables. In addition, the mean and medium of GROW (sales growth) will have a large distance between them. This also will mean that the sales levels of firms in the logistics sector in China per year will have a large difference and be very unstable.

Table 5 Descriptive statistics of sample in Thailand

Variables	Min	Max	Median	Mean	Sta.Dv.	Observation
DIV (%)	0	17.68	0.89	2.2988	3.73969	63
ROA (%)	-57.44	32.42	5.31	4.797937	14.2361	63
GROW (%)	-66.38	372.51	1.17	6.3605397	59.931307	63
DEBT (%)	5.65	98.6	40.51	42.9877778	20.5117131	63
CONC (%)	3.84	37.93	23.82	20.00015873	7.66860199	63
SIZE	8.54	10.71	9.42	9.677937	0.715695	63
LIQ (Times)	0.01	12.49	1.14	2.078095238	2.759417807	63
IO (Times)	0.15	15.78	0.82	1.398888889	2.546361801	63

The logistics sector in Thailand is still developing at a level above that of many countries of ASEAN. Due to the reason, some relatively mature firms of logistics sector in Thailand prefer to maintain a higher level of retained earnings; they maintain enough cash flow to develop new projects. In other words, many shareholders prefer to get profit from the benefits of other projects as well as profits from logistics.

From the descriptive statistics of the sample in Thailand (Table 5) shows the ratio of dividends to total assets in percentage (DIV) as dividend level. Again, there is a large distance between minimum value and maximum value, and the median and mean have a large difference. The variables ROA (return on assets) and GROW (sales growth)'s minimum and maximum have a large distance, that means the profitability and

sales growth situations have a big difference in the firms in the logistics sector in Thailand per year. The debt ratio (DEBT) descriptive statistics show the maximum value at 98.6, that although the logistics sector in Thailand is maintaining a rapid degree of development, there is also also a higher degree of liability for some firms. The median value and mean value of DEBT shows that all debt ratios of the firms to be over 40%. The minimum and maximum value of CONC (ownership concentration as shareholding ratio of the largest shareholder of firm) is 3.84 and 37.93 respectively. That indicates that the shares system is very different in the firms in the logistics sector in Thailand, but the shareholding ratio of the largest shareholder's average level is in 20%-24% range. The minimum value and maximum value of SIZE (log of total

assets) are 8.54 and 10.71 that indicates strength with the wide variations in firms in the logistics sector in Thailand. The minimum value of LIQ (the current ratio) is 0.01 that means the current assets and the current liabilities are almost the same. The maximum, medium and mean values of LIQ (the current ratio) are 12.49, 1.14 and 2.1. That shows that the financial situations of the firms in the logistics sector in Thailand are quite different. The descriptive statistics of IO (investment opportunities) shows the investment opportunities in the market are under an environment of very rapid development and competition can make a big difference for each firm in the logistics sector in Thailand.

The study uses the mean of log of total assets as a means to size a firm and separate big-sized, small and medium-sized firm. According to the mean of log of total assets of 25 firms in logistics sector in China and 7 firms in logistics sector Thailand, the study found that the mean log of total assets is 9.689087. So the study defines the following boundaries: Big-sized firm as that the log of average total assets of firm during 2006-2014 equal or more than 9.689087 (the log of average total assets ≥ 9.689087); Small and Medium-sized firm as that the log of average total assets of firm during 2006-2014 less than 9.689087 (the log of average total assets < 9.689087);

Table 6 Descriptive scale of firms in China and Thailand

Country	Number of listed firm	
	No. of Big-sized	No. of Small & Medium-sized
China	12	13
Thailand	3	4

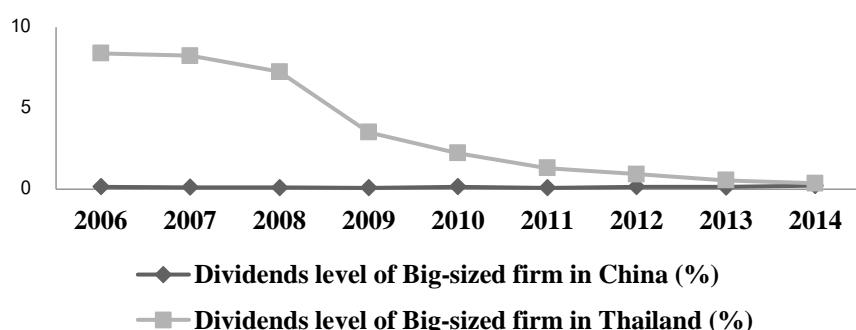


Figure 2 Trend in dividends level of Big-sized firms in logistics sector in China and Thailand (Unit: %)

The Figure 2 show dividend levels of big-sized firms in logistics sector of China has leveled off during 2006-2014, and the dividends of big-sized firms in logistics sector in Thailand has downward trend in period of 2006-2014, By 2014 the

dividends level of big-sized firms in logistics sector in China and Thailand had closed down. Overall, the logistics sector of Thailand paid out more in dividends than China during 2006-2014.

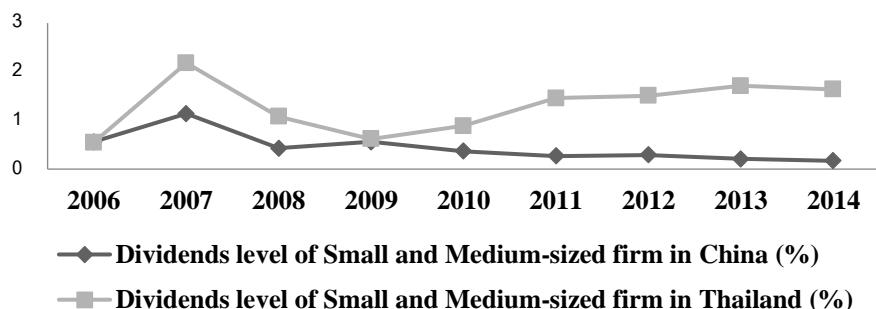


Figure 3 Trend in dividends level of Small and Medium-sized firms in logistics sector in China and Thailand (Unit: %)

From the Figure 3, the dividend levels of small and medium-sized firms in China and Thailand almost the same in 2006. The levels in 2009 were very close. The other period years beside the period years of 2006 and 2009 the dividends levels

were a disparity between small and medium-sized firms in the logistics sector in China and Thailand. Overall, the small and medium-sized firms in the logistics sector in Thailand paid more dividends than China.

Inferential statistics

Table 7 Group Statistics

Country	N	Mean	Std. Deviation	Std. Error Mean
DIV (%) C	225	0.2955	0.97516	0.06501
T	63	2.2988	3.73969	0.47116

Following the Table 7 shows the independent sample which is ratio of dividends to total assets (DIV) of 25 listed firms in logistics sector in China during 2006-2014 and ratio of dividends

to total assets (DIV) of 7 listed firms in logistics sector in Thailand during 2006-2014 respectively. The paper suppose the null hypothesis (H0) is that there is no difference between the mean dividend

payout ratio of firms in logistics sector of China and Thailand. And alternative hypothesis (HA) is that there is

difference between the mean dividend payout ratio of firms in logistics sector of China and Thailand.

Table 8 Independent samples test

	Levene's test for equality of variances		t-test for equality of means			
	F	Sig.	95% Confidence interval of the difference			
			Sig. (2-tailed)	Lower	Upper	
DIV(%)						
Equal variances assumed	94.994	.000	.000	-2.54850	-1.45806	
Equal variance Not assumed			.000	-2.95334	-1.05323	

There are two results from two different t-tests. One assumes an equal variance and the other an unequal variance. Following the above table 8, the p-value is 0 and that has significance and implies the result can reject to the null hypothesis (H0). Therefore, it can determine if there was a difference between the mean ratio of dividends to the total assets of firms in

the logistics sector of China and Thailand during 2006-2014.

Compare the mean of ratio of dividends to total assets and from the dividends level in Table 7, the author find that the dividends level in the logistics sector in Thailand is greater than in China.

Table 9 Correlation Matrix between variables in Model - China: Pearson Indices

Variables	DIV	ROA	GROW	DEBT	CONC	SIZE	LIQ	IO
DIV	1							
ROA	.152*	1						
GROW	.173**	.036	1					
DEBT	.802**	-.128	-.001	1				
CONC	-.285**	-.043	-.061	-.275**	1			
SIZE	-.270**	-.008	.040	-.365**	.379**	1		
LIQ	-.070	.037	-.017	-.136*	-.092	-.028	1	
IO	-.121	-.068	.059	-.099	.039	.001	.013	1

**. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

The Table 9 shows the Pearson's correlation matrix for the variables used in the analysis. The result of the correlation shows that the ratio of

dividends to total assets (DIV) shows a positive correlation with return on assets (ROA) in percentage, which is statistically significant at a 95%

confidence level. The result of the correlation shows that the ratio of dividends to total assets (DIV) in percentage form has a strong positive correlation with the sales growth (GROW) in percentage. The statistic significance is 0.173** and the p-value is less than the 0.01 level which indicates that with the high sales of a firm in the logistics sector in China they will be able to pay more dividends. The debt ratio (DEBT) in percentage also has a strong positive correlation with ratio of dividends paid to total assets (DIV). It is significant that with a 99% confidence

level, a firm with a higher debt level will pay more dividends. The ratio of dividends to total assets (DIV) has a strong negative correlation with the ownership concentration as the largest shareholder of a firm (CONC) in percentage with the size of the firm (SIZE). The statistical significance is -0.285** and -0.270** respectively. That indicates that when the ownership concentration of shareholding is higher, the dividends payment is lower for a firm in the logistics sector in China. In addition, when a firm's scale is larger that firm will pay low dividends.

Table 10 Result of pooled least squares model (1)-China

Cross-section fixed (dummy variables)			
R-squared	0.909167	Mean dependent var	0.002870
Adjusted R-squared	0.891762	S.D. dependent var	0.009767
S.E. of regression	0.003213	Akaike info criterion	-8.493410
Sum squared resid	0.001724	Schwarz criterion	-7.949187
Log likelihood	882.3410	Hannan-Quinn criter	-8.273171
F-statistic	52.23563	Durbin-Watson stat	2.091900
Prob (F-statistic)	0.000000		

The result of fixed effects model (1) shows R-square is 0.909167, there is 90.9167% of variance in the ratio of dividends to total assets (DIV) explained by the independent variables (ROA, GROW, DEBT, CONC, SIZE, LIQ and IO). The F-statistics is 52.23563 and P-value is 0 less than 0.01 that means we have statistical significance. The Durbin-Watson statistic is 2.091900 that will

shows that the autocorrelation is eliminated between the variables in Model.

Accordingly the results show that the model (1) fitting is excellent and the independent variables all have an effect on the dependent variable (DIV), so the regression for Model (1) becomes:

$$DIV_{i,t} = 0.063044 + 0.006675ROA_{i,t} + 0.000414GROW_{i,t} + 0.010756DEBT_{i,t} - 0.024037CONC_{i,t} - 0.005818SIZE_{i,t} + 0.000212LIQ_{i,t} - 0.0000529IO_{i,t}$$

Table 11 Correlation Matrix between variables in Model (2)-Thailand: Pearson Indices

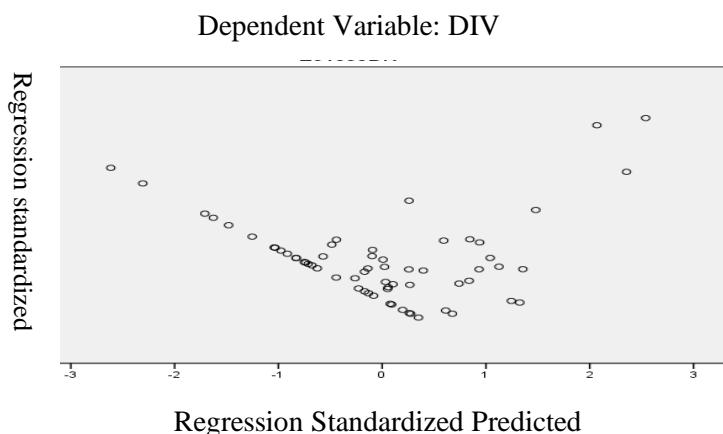
Variables	DIV	ROA	GROW	DEBT	CONC	SIZE	LIQ	IO
DIV	1							
ROA	.630**	1						
GROW	-.097	.174	1					
DEBT	-.561**	-.565**	-.102	1				
CONC	.155	.389**	.079	.061	1			
SIZE	.145	.122	-.084	-.112	.171	1		
LIQ	.387**	.282*	-.123	-.608**	-.038	.039	1	
IO	.002	-.410**	-.151	.248	-.267*	-.295*	-.051	1

**. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

From the Table 11 shows the Pearson's correlation matrix for the variables used in the analysis. The ratio of dividends to total assets (DIV) in percentage has a strong positive correlation with independent variables in model (2) which is a return on assets (ROA) in percentage

and the current ratio (LIQ) in percentage respectively. There the P-values are 0.630** and 0.387**. In addition, the DIV in percentage has a strong negative correlation with the independent variable as debt ratio (DEBT) in percentage in model (2) where the P-value is -561**.


Figure 4 Scatterplot between DIV and predicted variables

Due to there being heteroscedasticity between explanatory variables (ROA, GROW, DEBT, CONC, SIZE and LIQ)

and dependent variable (DIV). Therefore, there is heteroscedasticity in model (2).

Table 12 Fixed effects Model (2)-Thailand

Cross-section fixed (dummy variables)		Weighted Statistics	
R-squared	0.952100	Mean dependent var	0.530401
Adjusted R-squared	0.939391	S.D. dependent var	8.251406
S.E. of regression	1.018388	Sum squared resid	50.81859
F-statistic	74.91957	Durbin-Watson stat	1.594226
Prob (F-statistic)	0.000000		

After one-step weighting with panel data, using the method of the fixed effects model to the fixed different cross-section of the 7 firms, we make the 7 differences of cross-sections of firms in same cross-section in model (2). Using the method of cross-section of seemingly unrelated regression model for the cross-section seemingly unrelated between variables in model (2). Based on the method used, finally, the study uses pooled estimated generalized least squares (Pooled EGLS) to run model (2). All of the above operation processes run in Eview 6.0. The result shows in Table 12.

The results (Table 12) shows the R-square is 0.952100, the mean the 95.21% in variance of the dependent variable as a ratio of dividends to total assets (DIV) explained by independent variables (ROA, GROW, DEBT, CONC, SIZE, LIQ and IO). The F-value is 74.91957 and P-value is 0 less than 0.05. That means the model (2) is significant and applicable.

Accordingly the regression result, the Model (2) becomes:

$$DIV_{i,t} = 0.373666 + 0.139156ROA_{i,t} - 0.006267GROW_{i,t} - 0.057539DEBT_{i,t} - 0.033844SIZE_{i,t} - 0.003104LIQ_{i,t} + 0.003625IO_{i,t};$$

Conclusion

Based on the empirical research results, the study was found to confirm what firm-level achieved and how each factor affected the dividend payouts from 2 countries. ROA (return on assets), GROW (sales growth), DEBT (debt ratio), CONC (ownership concentration as shareholding ratio of the largest shareholder of firm), SIZE (the scale of firm), LIQ (the current ratio) and IO (investment opportunities) as firm-level factors affecting the dividend payout in

the logistics sector in China. At the 1% significance level, the study found ROA, GROW and DEBT significant in dividend payouts in the logistics sector in China with the positive sign of a coefficient. At the same significance level, the study found CONC and SIZE significant in dividend payouts in the logistics sector in China with the negative sign of a coefficient. At a 10% significance level, LIQ is a positive correlation with a dividend payout in the logistics sector in China and IO is a negative correlation with a dividend

payout in the logistics sector in China at a 5% significance level. **Therefore, the hypothesis 1 proves to be correct.** The study observes that there is an effect of ROA, GROW, DEBT, CONC, SIZE, LIQ and IO on the dividend payouts in the logistics sector in Thailand. At 1% significance level, the firm-level factors in which ROA and IO are in positive correlation with dividend payouts in the logistics sector in Thailand and GROW, DEBT, SIZE and LIQ are in negative correlation with dividend payouts in the logistics sector in Thailand respectively. In addition, CONC has no significance with dividend payouts in the logistics sector in Thailand. **Therefore, the hypothesis 2 proves to be rejected.** Based on the t-test to compare the mean of ratio of dividends to total assets in percentage between China and Thailand during 2006-2014, there are significant statistics. According to the mean of dividends level from the two countries it shows the mean ratio of dividends to total assets in Thailand is higher. That implies that listed firms in the logistics sector in Thailand pay more dividends between the two countries. **Therefore, the hypothesis 3 proves to be correct.**

Discussion

According to the empirical investigation to discuss:

Return on assets (ROA) means the profitability of a firm in which there is a positive correlation with dividend payout in the logistics sector in China and Thailand in this study. The empirical studies finds that profitability has positive effects on dividend policy (Kong, 2003; Yuan and Su, 2004; Shi and Ouyang, 2004; Bebczuk, 2004; Kozul

and Orsag, 2012). Gill et al. (2010) empirical study found each industry had different results and had different factors to utilize their profitability and create their dividend policy. The relationship between both can be a possible negative correlation or positive correlation. In addition, Anil and Kappor (2008) in their empirical study found there to be no relationship between them. Above all, the study thinks the profitability can be evidenced through dividend levels that represent the current financial situation of a firm. For different industries have different relationships between profitability of the firm and the dividend payment, the study has two views: the one is a firm will show a stable development in the market and pay high dividends, another one is to let the shareholders understand the firm operates well.

Sales growth (GROW) indicates the positive sign with dividend level in analyzed firms in the logistics sector in China (Kania and Bacon, 2005), but there is a negative significant correlation with dividend level of firms in logistics sector in Thailand (Koul and Orsag, 2012; Gill et al., 2010; Samuel and Marfo-Yiadom 2011). For the higher sales growth have a higher dividend level in China, this study views the logistics sector in China still in development, even if the firm has a potential business possibility with a good sales growth in future, but the firms in the logistics sector in China will be to pay more dividends to attract more potential investors (Kania and Bacon, 2005). The sales growth rate is an important index to measure the condition of a business and market share forecasting ability, enterprise management and business development trends. That's an important

prerequisite for enterprises to expand their capital. The index of sales growth is higher in one which implies the growth enterprise in that market is faster, the prospects of the enterprise is better. In order to meet the firms operating funds for development the firm will be likely to retain their internal cash (Komrattanapanya, 2013; Koul and Orsag, 2012; Gill et al., 2010; Samuel and Marfo-Yiadom 2011). So the study thinks the reason that when a positive sales growth is in a correlation with a dividend level in which its sales growth would be at a decreasing level it refers to a firm that is potentially entering into a stage of expansion in its business that would need a positive cash earning power or large amount of financing to invest in a future project.

The debt ratio (DEBT) has a positive correlation with dividend level of firms in the logistics sector in China (Chen et al., 2005). And the debt ratio (DEBT) has negative correlation with dividend level of a firm in the logistics sector in Thailand (Gugler and Yurtoglu, 2003; Stacescu, 2006; Bena and Hanousek, 2006; Kowalewski et al., 2007). For the different results between China and Thailand, this study thinks the ratio is higher that expresses that the firm has more financial risk under circumstances of a high debt level to pay high dividends than it is when it is under great pressure just to pay higher dividends, Kozul and Orsag (2012) also viewed. But paying high dividends can be proving a firm is in a well-financed situation, so in order to reassure shareholders of a firm's position in the market, even under the high debt, the firm will be paying more dividends. Here is the use of the theory of asymmetric information by Bhattacharya (1979).

The shareholding ratio of the largest shareholder of a firm (CONC) is in a negative correlation with dividend level of a firm in the logistics sector in China (Kozul and Orsag, 2012; Maury and Pajuste, 2002; Harada and Nguyen, 2006; Bena and Hanousek, 2006). That indicates when the ownership concentration of shareholding is higher and the dividend level of a firm between the two countries is lower. This paper thinks that the larger shareholder of the firm would be able to change the dividend policy, Wang et al. (2011) hold the same view.

Following the regression results confirms the scale of the firm (SIZE) has a highly negative significance with dividend level of firms in the logistics sector in China and Thailand. Based on the results above, this study views that dividend distributions can show the financial situation of a firm how the well a firm's operation is by the better the dividend levels. In another words, the larger firms paying more dividends shows that the control agency isn't showing a reduction in the amount of cash flow that the managers' waste in non-profit investment projects so that shareholders continue to see high levels of cash maintained that can be used for higher dividends (Jensen and Meckling, 1976; Rozeff, 1982). But generally, the small firms have higher risk than larger firms. The small firms attract more potential investors inside to pay more dividends (Kapoor et al., 2010), conversely, the larger firms need to reserve enough internal cash flow for insurance against the unexpected needs in future. Therefore, the larger firm pays lower dividends.

The current ratio (LIQ) has a positive significance of 10% in the dividend level of firms in the logistics sector in China (Kania and Bacon, 2005; Adil et al., 2011; Alli et al., 1993; Anil and Kapoor, 2008). That indicates that the higher the liquidity level is the higher the dividend level is for a firm. That has a highly negative significance at the 1% level in the dividend level of firms in the logistics sector in Thailand (Kania and Bacon, 2005; Adil et al., 2011). Which means the higher the liquidity is the less the dividend level is for a firm. According to the different results from two countries the study thinks that it is possibly related with the manager's rights (Jensen, 1986). If the manager has a larger right in a firm, and a better financing structure of free cash flow, the manager might spend the cash flow in unnecessary expenses only on ideas of themselves. There can be a problem of agency conflict (Jensen and Meckling, 1976; Easterbrook, 1984; Rozeff, 1982).

Following the results by this study, the investment opportunities (IO) can be in a negative correlation with the dividend level of firms in the logistics sector in China (Komrattanapanya and Suntrruk, 2013; Kim and Gu, 2009; Jensen and Meckling, 1976), than that correlation of the dividend level of firms in the logistics sector in Thailand (Al-Shubiri, 2011; Chen and Zhao, 2000). Based on the results above, in the opinion of this study and according to the difference from sectors and countries, there are different investment opportunities and different investment influence levels for different firms. For example, the Anil and Kapoor (2008) and Gill et al. (2010) put forward that investment opportunities are not necessarily an important factor affecting dividend policies. Those factors are

better evaluated by the internal financial situations and esteemed shareholders' suggestions. There are larger opportunities and profitability's that can be obtained even if shareholders don't receive dividends. Other profits can be large enough that shareholders won't miss the non-payment of dividends.

Recommendations

From this study we learn that from the perspective of the largest shareholder that when the dividend is lower the manager needs to be in close contact with the largest shareholders and maintain good relationships with them and stay in close contact by communicating on a regular basis so the largest shareholders understand the operations and considerations of the firm. The manager should see that the larger shareholders are well apprised of the currents debt levels so adequate decisions can be made on the debt levels maintained, dividends paid out to the shareholders and other projects opportunities investments made.

The shareholders of firms in the logistics sector in Thailand should realize that greater investment opportunities pay higher dividends. Thus the reasons for maintaining larger cash flows to take advantage of opportunities when they become available so larger dividends can be paid.

By comparing the dividend levels in this study it confirms that Thailand pays more in dividends from the logistics sector than China. This leaves the investor with the choice to invest according to his or her demands from the logistics sectors of China or Thailand.

Limitation & further research

Limitation for China with panel data, there is a limitation due to the data not being complete, the original objectives of the sample in China from 32 listed firms into 25 listed firms during 2006-2014. Additionally there is a problem with time serials autocorrelation between the variables in model, after using methods to adjust the panel data, the observations were changed from 288 to 200.

Limitation for Thailand with panel data, there are 8 firms that are applied, the one firm listed was deleted from sample, so that sample had to be redefined, after using methods to adjust the panel data, the observations were changed from 72 to 63. Based on the above, the researcher expanded the research range in which there is year longer in the logistics sector in China. Because the listed firms in the logistics sector in Thailand are lower, the researcher should be to expand the research range in the firms (e.g. firms that are not listed).

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