Research Journal of

Business Management

ISSN 1819-1932

Academic Journals Inc.

www.academicjournals.com

Research Journal of Business Management 9 (2): 319-334, 2015
ISSN 1819-1932 / DOI: 10.3923/rjbm.2015.319.334

Structural Equation Model of Factors Affecting Thailand's Commercial Bank Branch Expansion

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ABSTRACT
As a result of the 1997 Asian financial crisis, many Thai banks were forced to close. As a result, the Thai financial system and commercial banks required an infusion of capital which in many instances was of foreign nature resulting in foreign investors becoming shareholders in the banks. As a result of the global financial crisis in 2008, the Bank of Thailand issued 7 directives concerning Basel III capital ratios of local and foreign banks operating in the Kingdom. Also in 2013, major revisions were again released by the Bank of Thailand for the licensing of new foreign commercial banks wishing to operate in the Kingdom. In this environment of dynamic global and regional change, the researchers undertook this study using both quantitative and qualitative research methods from a survey population of commercial bank executives. It was discovered that bank branch expansion was related to both corporate leadership and economic factors. Economic factors also influence leadership in determining strategic plans as well as teamwork in the ability to continue opening new branches. It was noted however that branch cost factors have minor influence on the opening of the bank because the expectation is that with the increased customers, new customers' fees and charges offset the additional operational overhead. The research noted that marketing with niche technologies such as telephone and Internet affected building relationships with customers and was a relationship marketing tool.

Key words: Branch expansion, leadership, cost, economic factors, banking

INTRODUCTION
Despite internal political tensions and turmoil as well as severe flooding in 2011, Thailand continues to maintain an open, market-oriented economy and encourages foreign direct investment as a means of promoting economic development, employment and technology transfer. In recent decades, Thailand has been a major destination for foreign direct investment and Thailand continues to welcome investment from all countries and seeks to avoid dependence on any one country as a source of investment. In this environment Thailand is moving forward with modifying and upgrading its banking regulations concerning foreign ownership and expansion.

In the wake of the 1997-98 Asian Financial Crisis, Thailand embarked on an International Monetary Fund (IMF), sponsored economic reform program designed to foster a more competitive and transparent climate for foreign investors. Legislation in 1999 established a new bankruptcy court, reformed bankruptcy and foreclosure procedures and allowed creditors to pursue payment from loan guarantors. The Foreign Business Act (FBA) of 1999 continues to govern most investment activity by non-Thai nationals. Foreign companies are free to open and maintain bank accounts in foreign currency. However, Thailand retains to some extent its investment control, as under certain circumstances, foreign investors that are previously granted national treatment are subjected to some reservations, in particular the service sector (US. Department of State, 2013).

Since, the start of the economic crisis, all organizations have experienced huge challenges to maintaining and strengthening customer relationships and banks have been particularly impacted. In a survey, Ernst and Young (2011) identified clear opportunities for banks to build increased advocacy and loyalty among their customers.

Additionally, on 7 June 2013 the Bank of Thailand issued major revisions concerning 'Rules, Procedures and Conditions' for the licensing of new foreign commercial banks wishing to operate in Thailand. Prior to this there were 15 registered foreign bank branches and one foreign bank subsidiary operating in Thailand. From 15 December 2011, these branches were allowed to form a subsidiary that would in turn be permitted to open up to 20 branches and have 20 ATM machines. The existing subsidiary would have the same rights (Bank of Thailand, 2013a, b). In recent years, foreign banks which have been issued licenses to operate in the Kingdom include the following:

- Bank of Tokyo-Mitsubishi UFJ, Ltd (MUFG)
- Mizuho Bank, Ltd
- Sumitomo Mitsui Banking Corporation (SMBC)
- Deutsche Bank AG
- Citibank, N.A
- Hongkong and Shanghai Banking Corporation Limited 2014 (HSBC)
- JPMorgan Chase Bank, National Association
- Crédit Agricole Corporate and Investment Bank (Crédit Agricole CIB)
- BNP Paribas
- Royal Bank of Scotland N.V
- Oversea-Chinese Banking Corp Ltd (OCBC)
- Bank of America, National Association
- Bank of China Limited
- RHB Bank Berhad-RHB Bank Berhad in Thailand is a branch office of the RHB Banking Group with its Head Office in Malaysia. RHB Bank Berhad is a 70% owned subsidiary of RHB Capital Berhad
- Indian Overseas Bank
- Mega International Commercial Bank Co., Ltd

An eligible future applicant intending to apply to establish a subsidiary must fulfill the following conditions and qualifications (Bank of Thailand, 2013a, b):

- Is a reputable foreign commercial bank with expertise, strong performance and financial standing, sound risk management system as well as good governance
- Is a locally established foreign commercial bank whose country of origin has significant business relations with Thailand in the areas of finance, trade and investment, or whose country of origin has a free trade agreement with Thailand

- Is a foreign commercial bank whose country of origin allows Thai commercial banks to operate at a similar level as commercial banks of that country (Reciprocity)
- Is a foreign commercial bank whose supervisory authorities maintain sound banking supervision standards
- Is a foreign commercial bank whose supervisory authorities give consent to provide information on the foreign commercial bank to the Bank of Thailand upon request to the extent that enables the Bank of Thailand to supervise the subsidiary operating in Thailand

Additionally, after the Ministry has granted approval for a foreign commercial bank to establish its subsidiary, the foreign commercial bank shall proceed to establish the subsidiary and submit request for a license to undertake banking business to the Minister, through the Bank of Thailand, within one year from the date of the Minister's approval, except under certain reasonable circumstances in which the Bank of Thailand may grant an extension period of no more than six months. Additionally, the foreign commercial bank shall comply with the following conditions (Bank of Thailand, 2013a, b):

- Subsidiary shall commence its operation within one year from the approval date, unless a waiver has been granted by the Bank of Thailand. In granting such waiver, the Bank of Thailand may impose any additional conditions
- Subsidiary must have paid-up registered capital in the amount no less than baht 20,000 million as from the day it commences its operation
- Commercial banking license must not be transferred or sold
- Should there be any change in shareholders of the applying foreign commercial bank or in the parent company that significantly affects shareholder structure of the subsidiary, prior approval must be sought from the Bank of Thailand. The Bank of Thailand may impose any conditions upon granting such approval
- In a case where the applying foreign commercial bank or the parent company has its license revoked, its business liquidated, or its juristic person status terminated, the Minister has the power to revoke the commercial banking license and the subsidiary then shall return the license to the Ministry of Finance
- Shares of the subsidiary must not be registered in a stock exchange

In this environment of regulatory change, the question of ASEAN Economic Community integration by 2015 looms. Scholars such as Das *et al*. (2013) analyzed the barriers and impediments to realizing this dream and asked the following questions:

- Whether the ASEAN Economic Community is achievable by 2015
- Obstacles along the way in achieving it
- Measures needed for its eventual achievement

Although, the self-imposed deadline for the realization of the ASEAN Economic Community (AEC) is 2015, it should not be viewed as a hard target. One should not expect 2015 to see ASEAN suddenly transformed its nature and processes abruptly changed, its members' interests substantially altered. Rather, 2015 should be viewed more as a milestone year a measure of a work in progress rather than as a hard target year.

Nevertheless, the commitments to the various dimensions of an AEC do reflect the value placed by the ASEAN member countries on regional economic integration and give them something to both invoke and aspire for.

Thailand which sees itself as the 'hub' of this community and as a founding member is looked upon by many as a leader in this integration and the policies that other nations should follow. Regional integration and emerging business opportunities are providing an impetus not seen before in driving intra-regional investment. As more ASEAN companies position and prepare for AEC 2015, this intra-regional investment wave is likely to gather force. It is therefore key that research be undertaken to understand Thailand's policies and processes in the integration of this $2.5 trillion dollar economy with 600 million consumers (Mirza and Wee, 2014).

With Thailand's entry into the ASEAN community, with a unified market and production base, the movement of goods, services, investment, capital and skilled labor has become freer and more open (Chia, 2013). Thailand's commercial banks need to accelerate their preparedness at providing quality, comprehensive and thorough preparations in both quantity and quality.

Additional knowledge is hopefully gained about the development and effectiveness of potential expansion of commercial banks. It can also help these commercial banks achieve their goals and increase their market share. Banking convenience also affects the financial results of banks.

With the start of the Asian Economic Community (AEC) in 2015 and the increase in financial liberalization with the freer movements of capital resources, banks must be ready and able to adjust their priorities and strategies accordingly (Chia, 2013).

The aim of this study was to study the composition and format in relation to the location, cost and economic factors influencing the expansion of bank branches across Thailand. The researchers expect these research results to be useful to policy makers in identifying problem areas in Thailand's commercial banking sector branch expansion efforts.

CONCEPTUAL DEVELOPMENT

In recent years, the subject matter of economics is divided into two broad areas. One of them is referred to as Microeconomics and the other is called Macroeconomics. These two terms microeconomics and macroeconomics were first coined and used by Ranger Frisco in 1933 (Economic Concepts, 2012). In recent years, this division of economic theory into two separate areas has gained much importance and acceptance. As such, when considering investments, both macro and micro economics must be considered.

Macroeconomics is the study of aggregate economic behavior, of the economy as a whole. These basic macroeconomic outcomes include: (1) Output: Total volume of goods, (2) Jobs: Level of employment, (3) Prices: Average price, (4) Growth: Year to year expansions and (5) International balances: International value of the dollar, trade and payment balance.

Microeconomics on the other hand can best be described as the study of specific individual units, particular firms, particular households, individual prices, wages and individual industries, particularly commodities. The microeconomic theory or price theory thus is the study of individual parts of the economy which is focused on the allocation of resources to the maximum benefit and the economic activity of each person, groups of individuals. Microeconomics is therefore concerned with the market price which is also called the theoretical price (price theory).

Bank branch expansion plans: The global commercial banking industry has been changing rapidly over the past three decades with changes occurring in both the structure of the industry as well as innovations in the delivery of financial services to individuals and firms. Innovations in mobile and electronic banking in addition to access points provided through the more than 2.2 million automated teller machines around the world have increased the opportunities for some financial services to be delivered remotely. These innovations have also allowed nonlocal and nontraditional lenders to offer financial services in rural areas.

Strong lender-borrower are prevalent in agricultural lending and the delivery of financial services in rural areas. Rural banks have traditionally supported local economic development and growth by supplying funds to local businesses. Consolidation across the banking industry often raises concerns about the delivery of financial services to agriculture and rural businesses. The willingness and ability of commercial banks to deliver agricultural and rural loans efficiently will play an important role in maintaining and expanding rural economies.

The number of insured commercial banks in the U.S decreased 56% from 14,496 in 1984 to 6,291 in 2011 (Fig. 1). Changes in the regulatory environment, including liberalization of geographic restrictions on branching and interstate branching, reductions in reserve requirements, deregulation of deposit accounts and capital requirements, are fundamental drivers of bank consolidation. The decline in the number of institutions is primarily due to bank mergers.

In an earlier by the research team Nam and Ellinger (2008) on bank branch expansion in rural America, the study identified the financial and market characteristics of commercial banks' branch expansion decision. One conclusion was that banks with high deposit growth rate, asset and loan to deposit ratio, agricultural loan rate, ROA and rural head office are more likely to open branches in both areas rather than in urban area.

However, due to the nature of the banking and the financial system, the Bank of Thailand has strict rules and as a result, the opening of bank branches requires a license. This must include the commercial bank's schedule of openings for each year which also includes the number of new branches to be opened, scheduled opening of each branch and the details of each branch, such as bank branch code, location, district, province, etc.

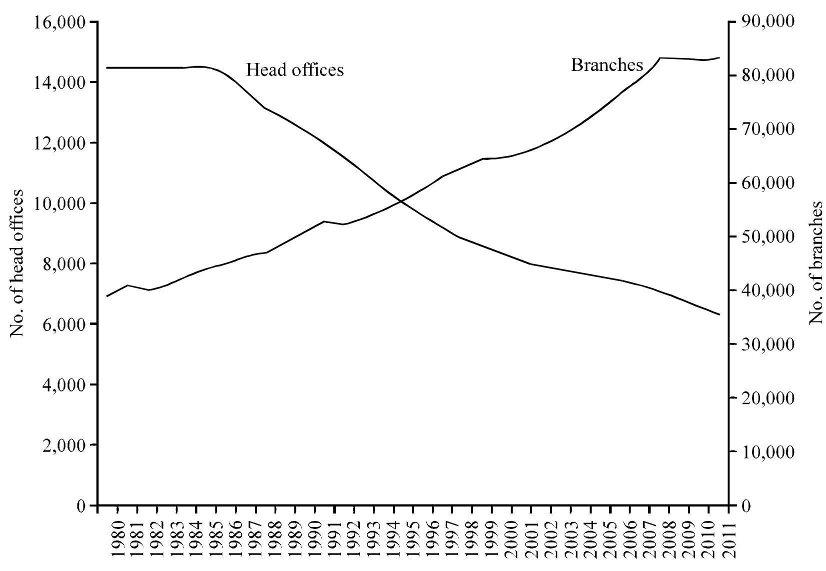

Fig. 1: Number of commercial banks and braches in the USA between 1980-2011 (Ellinger, 2012)

Leadership: Based on the analysis of many researchers, business leaders must possess strategic vision abilities and set goals the organization can reach. They must also have a strategy for use in both day-to-day and strategic operations. This ability will have an impact on the direction of the market, corporate performance and gross sales. It will also affect the success of product and services, cost recovery and the ability to retain customers and the controlling of operational costs (Subramanian and Gopalakrishna, 2001; Asiegbu *et al.*, 2012) by determining direction.

Furthermore, it has also been revealed (Boontawan and Montree, 2010) that entrepreneurship and leadership of organizations have an indirect effect on an organization's competitive advantage and financial performance. Leadership however has a higher effect over entrepreneurial skills. The study by Boontawan and Montree (2010) indicated that entrepreneurs must practice leadership without relying solely on charismatic personality traits as each entrepreneur has to drill and train their managerial skills, negotiation skills, decision making abilities along with the ability to pull employees together as a team.

Each organization will have a different structure which is dependent on the type, size and its configuration and functionality. It is the responsibility of each agency to facilitate efficient business operations (Martins and Terblanche, 2003; Blayse and Manley, 2004) and share responsibility for information and business decisions instead of being sourced from a single owner.

Elmuti *et al.* (2005) stated that leadership is obtained from both education and work experience which will give organizations a competitive advantage and profitable growth. Therefore, the duty of a leader is to define the direction of the organization as well as fulfilling the ability to deliver goods and services, including management and organizational development for future development (Clark and Armit, 2010).

Management needs to exhibit leadership through organizational and strategic vision. A definition of vision comes from Oren Harari which stated that "Vision should describe a set of ideals and priorities, a picture of the future, a sense of what makes the company special and unique, a core set of principles that the company stands for and a broad set of compelling criteria that will help define organizational success" (Collins and Porras, 2012).

Strategic vision is a link to what is actually present or what is also referred to as, organizational vision and to what is the possibility for the future (future vision) in a specific way (personal vision), an appropriate organizations and leaders. It was seen that strategic vision is to change management to help them understand the process of change because of the strategic relationships with business opportunities (Hagen *et al.*, 2003).

However, to define strategies it is necessary to know the habits of customers by creating and maintaining consumer data bases (Farajian and Mohammadi, 2010) to meet the needs of each customer. Banks also must prepare databases of information about each type of client (Edris, 1997) and use the information to implement a plan that supports the strengths of the organization (Kouzes and Posner, 1995) which is also adaptable and revised to suit the changing business environment every 2-3 years (Sokol, 1992).

Economic factors: Starting from January 1, 2013, local and foreign banks in Thailand must maintain a capital adequacy ratio of at least 8.5% of risk assets. For Thai banks, tier-1 capital must be at least 6%, including minimum 4.5% of common equity (The Nation, 2012). Thai banks' capital adequacy ratio now stands at 16% of risk-weighted assets. In the first three quarters of 2013, Thai banks stated they had a combined net profit of 135 billion baht. In addition to the above BIS requirements, all commercial banks must ask permission from the Bank of Thailand to open bank branches and have a capital to risk assets (BIS Ratio) of not less than 12%.

Cheng *et al.* (2005) said that another factor to be analyzed in investing is the Return on Investment (ROI). Additionally, for investors to open more branches, the Bank of Thailand's criteria state that they must have a reasonable and satisfactory financial position with the ability to absorb the risks of opening new branches (Bank of Thailand, 2013a, b). The top five major factors identified that may strongly influence international location decisions generally were: Costs, infrastructure, labour characteristics, government and political factors and economic factors (MacCarthy and Atthirawong, 2003).

Cost: Canel and Das (2002) suggested that the cost of doing business includes both fixed and variable costs. It is now well known that most major companies no longer operate in a single market. To penetrate global markets and obtain their benefits, companies are under tremendous pressure to reduce the price of their products and thus their production and material costs. When a foreign location is used, the components of a product are produced there and final assembly takes place either at the foreign location or at the parent domestic plant.

Factors that affect cost include the consideration of the organization, organizational policies, competitive conditions, amount of target, due to its location influence the income of the organization, because the density of the population. Income per head of population in each area is associated with the expansion of bank branches (Yankson, 2011).

Research by Mullineaux and Pyles (2010) examined the effects of investments by US banks in advertising and promotion on their performance in the areas of profits and market share. It is found that bank profits and market share increase significantly with increased spending on advertising and promotion. Also, significant evidence is found of increasing returns to scale in this type of marketing expenditure.

From Ernst and Young group's 'Global Consumer Banking Survey 2012' (Ernst and Young, 2012), it was found that customer advocacy is gaining power and word of mouth is gaining influence. After questioning 28,560 banking customers across 35 countries, it was concluded that customers are listening to each other more than banks or financial advisors. Globally, 71% seek advice on banking products and services from friends, family or colleagues and 65% use financial comparison sites to find the best deals. The views of online communities and affinity groups are also gaining importance. The use of social media as a source of banking information (by 44% of customers) is amplifying customers' voices, giving them greater power as advocates or critics.

Globally, only 44% of customers say their bank adapts the products and services to meet their needs. The survey results show that 70% of customers are willing to provide their banks with more personal information, In return, customers expect to receive tangible improvements in the suitability of products and services they are offered.

From the above conceptual review and development, the researchers have developed the following hypotheses for the present study:

H(1): Leadership influences branch expansion plans
H(2): Leadership influences cost
H(3): Cost influences the branch expansion plans
H(4): Economic factors influences leadership
H(5): Economic factors influences branch expansion plans

MATERIALS AND METHODS

Kasikornbank executives were queried using quantitative research methods of which 200 responded to 47 inquiries. The responses to the questions capturing focal constructs using a five-point Likert scale (Likert, 1970) w ith rating statements 1-5; 1 = 'Not at all important' to 5 = 'Very important' (Table 1).

Data collection: Schumacker and Lomax (2010) stated that Structural Equation Modeling (SEM) uses a variety of models to show the relationships between observed variables with the same basic goal of providing a quantitative test of a theoretical model hypothesized by a researcher. The models developed using SEM can be tested to show how sets of variables define concepts and how they are related. The goal of SEM is to determine the extent to which the model is supported by the data that is gathered during research (Schumacker and Lomax, 2010) and since SEM is capable of statistically modeling and testing complex phenomena, it has therefore become the preferred method for confirming (or not) theoretical models, quantitatively. Another very important consideration is the intended sample size with most authors recommending a sample size of at least 100 to generate good results (Cunningham, 2008; Schumacker and Lomax, 2010; Weston and Gore Jr., 2006; Worthington and Whittaker, 2006), so, therefore, a sample size smaller than 100 should not be used as it is unreliable and consequently SEM should not be used (Meldrum, 2010).

As such, this study draws from a sample population of middle and senior level banking executives using both quantitative and qualitative research working within the Thai commercial banking sector. Kasikornbank, as Thailand's second largest commercial bank (Reuters, 2014) is an excellent representative of this economic sector. From the sample size determined by Schumacker and Lomax (2010), the researchers used the 20 sample size suggested for each variable. As the research consisted of 10 variables, a minimum of 100 samples were deemed as acceptable of which 200 were obtained (Hair *et al.*, 2006).

Therefore, this study a sample size of 220 samples were collected, equivalent to 18.3 times the independent variables. This is in accordance with the Schumacker and Lomax (2010) by storing samples. The Stratified Sampling method was employed (Table 2 and 3) with the proportion of the population in each of the following:

Table 1: 5-point Likert scale and range of mean score

Range of mean score	Level of importance
4.21-5.00	Very important
3.41-4.20	Important
2.61-3.40	Neither important nor unimportant
1.81-2.60	Unimportant
1.00-1.80	Not at all important

1: Not at all important to 5: Very important

Table 2: Stratified sampling method results

Population profile sample size	People	Sample size
Middle-management	40	10
Managers	974	210
Total	1,014	220

Table 3: Survey information

Position	Frequency	Percentage	Valid (%)	Cumulative (%)
Clerks	53	24.1	24.1	24.1
Middle managers	43	19.5	19.5	43.6
Supervisor	39	17.7	17.7	61.4
Section chief	45	20.5	20.5	81.8
Senior project manager	15	6.8	6.8	88.6
Assistant director	21	9.5	9.5	98.2
Asst. executive director	3	1.4	1.4	99.5
Executive director	1	0.5	0.5	100.0
Total	220	100.0	100.0	

Quantitative measurement: Analysis of Thai commercial bank branch expansion and its relationship with the AEC used a measurement instrument or questionnaires utilizing a 5-Point Likert Scale (Likert, 1970).

Dependent variable: Branch expansion plans (per-branch) analysis of the Thai garment sector used a measurement instrument or questionnaires utilizing a 5-point likert scale (Likert, 1970) which were developed and constructed from scales enabling the measurement of Bank Branches (ser-a1) and time (ser-a2) (Nam and Ellinger, 2008; Ellinger, 2012; Bank of Thailand, 2013a, b; Mirza and Wee, 2014).

Independent variables: The scales for Leadership (Leadership) were developed using anaylsis tool with a 5-point Likert scale (Likert, 1970) and have been constructed with three aspects (Table 2) including Strategy (Leader-strategy), planning (Leader-plan) and teamwork (Leader-teaam) (Subramanian and Gopalakrishna, 2001; Asiegbu *et al*., 2012; Boontawan and Montree, 2010; Martins and Terblanche, 2003; Blayse and Manley, 2004; Elmuti *et al*., 2005; Collins and Porras, 2012; Hagen *et al*., 2003; Farajian and Mohammadi, 2010; Edris, 1997; Kouzes and Posner, 1995; Sokol, 1992).

The scales for cost (cost) were developed using an analysis tool with a 5-point Likert Scale query (Likert, 1970) and have been constructed with three aspects (Table 2) including Size (cost-size), location (cost-location) and technology (cost-techno) (Canel and Das, 2002; Yankson, 2011; Mullineaux and Pyles, 2010; Ernst and Young, 2012).

The scales for Economic Factors (Econ. factors) were developed using an analysis tool with a 5-point Likert Scale query (Likert, 1970) and have been constructed with two aspects (Table 2) including Economic Input (econ-in) and Economic Output (econ-out) (Bank of Thailand, 2013a, b; The Nation, 2012; Cheng *et al*., 2005; MacCarthy and Atthirawong, 2003).

RESULTS

Partial least squares has been applied for analysis of quantitative data by the researcher. It is data analysis for Confirmatory Factor Analysis (CFA) relating to the determination of manifest variable and latent variable and testing of research hypothesis exhibiting in structural model analyzed by using the applications of PLS-Graph (Chin, 2001).

According to the analysis result of scale validity and reliability, scale investigation has been conducted using internal consistency measurement coefficient alpha. (α-coefficient) of Akron BAC

(Cronbach) to calculate the average value of the correlation coefficient was found that alpha coefficients ranged from 0.914-0.922 which is considered to have high reliability. The 5-point Likert Scale (Likert, 1970) questionnaire was utilized. Qualitative research was conducted with in-depth interviews of 10 senior-level executives who were in positions that determined strategy for their respective commercial banks. The sample group was based on 200 cases (Schumacker and Lomax, 2010) which is considered highly reliable.

In case of measure variables with reflective analysis, convergent validity has been conducted. Loading is used as consideration criteria and must be positive quantity and indicator loading has been more than 0.707 and all values have been statistically significant ($|t|\geq 1.96$) representing convergent validity of scales (Lauro and Vinzi, 2004; Henseler and Fassott, 2010) and analysis results as shown in Table 4.

Leadership factors consisting of strategy, planning and team had the loading values of 0.9056, 0.8514 and 0.8876 with a statistical significance of 95% (t-stat>1.96) which indicate that a particular factor had influence over the dependent variable Bank Expansion Plans.

Cost factors consisting of size, location and technology had the loading values of 0.8340, 0.9159 and 0.8657 with a statistical significance of 95% (t-stat>1.96) which indicate that a particular factor had influence over the dependent variable Bank Expansion Plans.

Economic factors variables consisting of bank performance and economic conditions had the loading values of 0.9184 and 0.9254 with a statistical significance of 95% (t-stat>1.96) which indicate that a particular factor had influence over the dependent variable Bank Expansion Plans.

Bank Expansion Plans factors consisting of bank branches and time had the loading values of 0.7178 and 0.8921 with a statistical significance of 95% (t-stat>1.96) which is considered hightly reliable.

Discriminant validity: Discriminant validity has been tested on scale reliability, including Composite Reliability (CR) which should not be lower than 0.60, Average Variance Extract (AVE) should not be lower than 0.50 R^2 should not be lower than 0.20 and $\sqrt{AVE}$ in the diagonal data should have a value higher than cross construct correlation of all values in the same column. The data validates that there was discriminant validity for each construct, without exception (Lauro and

Table 4: Reflective statistical values indicating convergent validity of the latent variables

Construct/item	Loading	t-stat
Leadership		
Strategy (Leader-strategy)	0.9056	26.1118
Planning (Leader-plan)	0.8514	17.7545
Teamwork (Leader-team)	0.8876	22.2008
Cost (cost)		
Size (cost-size)	0.8340	23.0626
Location (cost-location)	0.9159	53.4901
Technology (cost-techno)	0.8657	19.8037
Economic factors (econ.factor)		
Economic input (econ-in)	0.9184	54.3261
Economic output (econ-out)	0.9254	51.5186
Branch expansion plans (Per-branch)		
Bank branches (ser-a1)	0.7178	4.9233
Time (ser-a2)	0.8921	27.2730

Venzi, 2004; Henseler *et al*., 2009). Testing results of discriminate validity of this study was in accordance with all conditions shown in Table 5. Therefore, the scales of this research have been the scales with discriminant validity and reliability.

Bank branch expansion plans analysis modeling of the variables that influence branch expansion found that of all the 5 assumptions, only Hypothesis 3 was not supported which means that cost does not influence branch expansion with Thai commercial banks. However, a factor that affects this decision is corporate leadership which determines strategy because strategic managers decide which bank branches to open (Fig. 2 and 3).

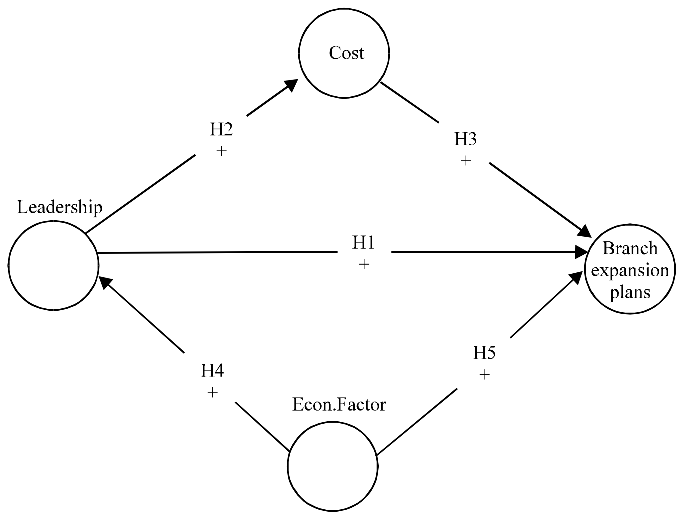

Fig. 2: Research model

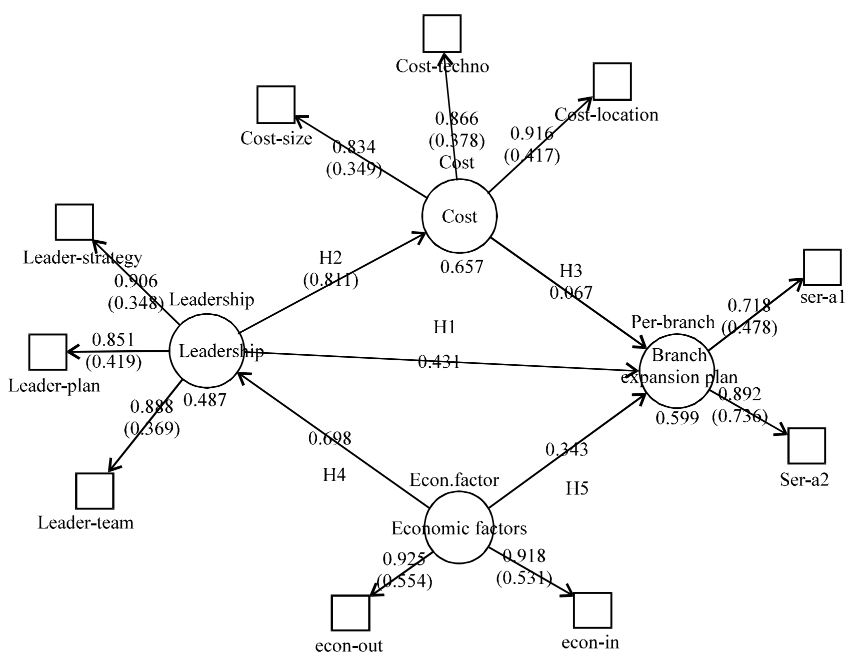

Fig. 3: Final model

Table 5: Results of Confirmatory Factor Analysis (CFA) for measurement model

				Cross construct correlation			
Construct	CR	R^2	AVE	Leadership	Cost	Economic factors	Branch expansion plans
Leadership	0.913	0.4869	0.778	0.882			
Cost	0.905	0.6575	0.761	0.811	0.872		
Economic factors	0.919		0.850	0.698	0.824	0.922	
Branch expansion plans	0.790	0.5994	0.656	0.725	0.699	0.699	0.810

Statistical significance level is at 0.05 and diagonal figures mean $\sqrt{\text{AVE}}$, CR: Composite reliability AVE: Average variance extracted, R^2: Square of the correlation

Table 6: Research hypotheses test results

Hypotheses	Coefficient	t-stat	Results
H1: Leadership influences branch expansion plans	0.431	3.1589	Supported
H2: Leadership influences branch cost	0.811	17.9764	Supported
H3: Branch cost influences the branch expansion plans	0.067	0.4694	Unsupported
H4: Economic factors influence leadership	0.698	15.7291	Supported
H5: Economic factors influence branch expansion plans	0.343	2.7906	Supported

Figure 3 shows the research framework and the structural model of independent variables that influence the dependent variable of Branch Expansion Plans. Independent Variables included leadership, cost and economic factors and their influence on 200 surveyed participants. The samples were analyzed to answer the research hypotheses criteria of the following five assumptions (Table 6). Furthermore, the structural analysis model framework was used to research the t-test coefficients and their relationship of each path of the t-test hypothesis with significance greater than 1.96. This explains the results obtained from analysis as shown in Table 4 and 5 as well as the test results presented in Table 6.

DISCUSSION

Based on the findings of 'Structural Equation Model of Factors Affecting Thailand's Commercial Bank Branch Expansion', ongoing discussion needs to be considered on additional points.

Despite technological and regulatory innovations that might have been expected to reduce banking institutions' reliance on bricks-and-mortar branches to deliver financial services, the number of full-service bank branches has increased steadily in Thailand as well as in the US (Ellinger, 2012) in recent years. While several studies have considered the impact of the expansion of large, multi-market banking organizations into local markets, relatively little analysis has been undertaken to take a direct look at the impact of increasing branch network using recent branching data.

This study takes a simplified empirical approach to addressing these developments while identifying a series of performance and cost proxies which assess the impact of branch network size, after controlling for other institution-specific and market-specific factors. In particular, results reveal that in assessing the impact of branch network size, it is important to control for institution asset size, since the two are correlated. There appears to be little relationship, however, between branch network size and overall firm profitability, whether measured using accounting-or market-based data.

In 2013, the Bank of Thailand issued 7 directives which were directives in the immediate implementation of the Basel III rules on capital ratios of local and foreign banks operating in the

Kingdom (BIS., 2013). The Bank for International Settlements (BIS), the central bank of central banks, drew up the Basel III rules in light of the 2008 financial crisis. Starting from January 1, 2013, local and foreign banks in Thailand must maintain the capital adequacy ratio at least 8.5% of risk assets which is unchanged from the current requirement. For Thai banks, tier-1 capital must be at least 6%, including minimum 4.5% of common equity (The Nation, 2012) with Thai banks' capital adequacy ratio now standing at 16% of risk-weighted assets. In the first three quarters of 2012, the combined net profits were at Bt135 billion. As can be seen from the above influencing external directives, economic factors are composed of both internal and external factors which can affect the expansion of Thai bank branches.

Leadership factors have a direct effect on Thai bank branch expansion which includes strategic planning and team performance. The corporate leaders will determine the direction of the organization, including strategic planning and team to manage and develop the organization to further advance the organization (Clark and Armit, 2010). Other factors include economic factors which is consistent with many researchers.

In the current era of globalization, information flows quickly and change is rapid, so, leaders must be knowledgeable and experienced (Elmuti *et al.*, 2005) to manage the changes and to create business opportunities which gives birth to enterprises (Hagen *et al.*, 2003).

Another major factor is cost which is a factor that appears to have no direct effect on the expansion of bank branches. However, it does have indirect factors in the sense that they affect the organization's expansion as a commercial bank and does consists of branch locations and the equipment and their respective technology.

This is consistent with the study of Durkin and Howcroft (2003) who noted that the use of technology to expand marketing channels reduces the cost to the organization. It also helps to build relationships with customers, so, cost is not a branch of factors that affect the expansion of bank branches directly.

CONCLUSION

A 'Structural Equation Model of Factors Affecting Thailand's Commercial Bank Branch Expansion' found that the factor that most has the greatest influence on bank branch expansion, both direct and indirect, is economic factors, both internal and external. Information flow is ever increasing in both speed and range and has a direct impact on the outcome of a business and customer service and satisfaction. Leadership plays a key role in a bank's ability to keep pace with change and competition. Strategy, planning and teamwork are all integral components of this.

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