



Competitiveness, globalization and technology development in Thai firms

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Abstract

Purpose – The purpose of this paper is to identify the influence of competitiveness, strategic direction (SD), and competencies on the level of globalization and technology development in Thai firms from the executive perspective.

Design/methodology/approach – A pilot survey of 64 respondents in executive MBA programs was employed to identify the strategic factors that influence globalization and technology development.

Findings – The analysis specified important factors linked to SD, strategic management competencies, and global actions related to globalization performance and technology development. To achieve a better global performance and business development, Thai companies should adopt global standards, select potential international partners, use cross-national projects, and focus more on the level of globalization of their operations. Top managers in strategy or business operations in high-performing firms perceive a significantly higher globalization performance and technology development.

Research limitations/implications – The survey was limited to the perceptions of executive participants in Thailand using a survey only in English.

Practical implications – Thai executives need more effective strategic approaches to compete in the global marketplace and to determine the appropriate strategies to achieve a global level of performance and increased technology competence.

Originality/value – The paper shows that the strategic competencies and global competencies of executives play a significant role in firms' level of global performance and technology development. These competencies support effective strategies to improve the competitiveness of Thai companies on a global level.

Keywords Thailand, Globalization, Technology led strategy, Business development, Management skills

Paper type Research paper

Introduction

In recent years, the competitiveness of Thailand has been stagnating or declining. According to the World Economic Forum's (2008) Global Competitiveness Index, Thailand is ranked 34th of 134 countries assessed. This decline is related to low competitiveness in innovation (ranked 64th) and limitations in management (ranked 89th). For overall globalization, Thailand scored 87.10 (Swiss Economic Institute, 2008). AT Kearney ranked Thailand's globalization 53rd, a decline of nine places compared to 2005. For both competitiveness and globalization, Thailand's position is weakening.

In globalization, capital and labor mobility have increased economic and market interdependence among countries. It also has linked world production in supply chains



and connected more countries because of reduced trade barriers and greater competition. Through globalization, the world has become increasingly more technology driven. As global competition continues to intensify, firms will be required to achieve and maintain their advantage through a more competitive strategy (Haines and Sharif, 2006). Executives have recognized that strategic change in the global context is important in improving firm performance. Businesses in Asia-Pacific are currently confronted with the benefits and the costs of globalization. This has required firms to adapt their corporate strategies. For benefits, global market opportunities enable firms to access worldwide resources and expand into many foreign markets. This enhances the firm's international performance. Related to costs, global market threats can be destructive to firm performance because of the increasing intensity of competitors. Firms that respond to these world trends and opportunities develop effective strategic competencies to meet this challenge through global initiatives, which improve their global business performance (Cooke, 2008; Offstein *et al.*, 2005). Many descriptive and theoretical studies have been published on globalization and business strategy. There is little empirical research in Asia and the Pacific that investigates how strategic competencies affect the globalization level of the firm, its technology development, and how this combination relates to their global performance. The need to investigate the influence of strategic development on the firm's global performance has been emphasized in past studies (Congden, 2005; Palpacuer, 2006; Wan and Hoskisson, 2003). In this study, the role of the strategic skills of executives in Thai firms and the level of globalization performance and technology development will be investigated. While inward FDI in Thailand has been widely studied, not much is known about the international business activities, strategic competencies, and performance of Thai firms in overseas operations (Pananond, 2007). The results will help executives achieve better international performance through increasing growth abroad, expanding overseas investment, and increasing technology innovation.

Literature review

Thai organizational context

Companies in Thailand, even the bigger firms listed on the stock exchange, have a family style corporate culture based on seniority, centralized control, and relationships (Adams and Vernon, 2004). The majority of Thai managers consider their company has a Thai style. This style is characterized by compromise, harmony, trust, respect, and Thai tradition (Adams and Vernon, 2004).

Many Thai professionals tend to be dependent on a rigid age dependent hierarchy (Beckmann *et al.*, 2008). They are also more "uncertainty" avoiding and more likely to follow established standards on norms.

Thai companies, when they go international, move more slowly than Japanese, Korean, or Chinese firms in the transition from being domestic to becoming more international and innovative (Wongtada and Rice, 2008). This slow transition is related to private sector commercial and industrial associations that are protective of short-term local interests, have a fear of failure, and have a family dominant management style (Wongtada and Rice, 2008).

Business practices related to Thai style management are a risk in globalization because competitiveness requires a totally different emphasis. Western organizational cultures are slowly being adapted; for example, some Thai companies are becoming

more process oriented than functional and more concerned with performance than stability (Rodsutti and Swierczek, 2002). This type of organizational culture is more compatible with competitiveness and globalization.

Corporate strategy and the globalization edge

Globalization has caused significant changes in the business environment with the emergence of global market opportunities and threats. Firms have been forced to respond quickly and focus corporate strategies in terms of improving their organizational competencies and global perspective (Cox and Bridwell, 2007; Jones, 2002). In Asia, firms should adapt their strategic focus in specific ways based on the key success factors associated with international performance. These include business diversification, new international markets, greater innovation, and improved international strategic management (Cooke, 2008). Executives should pursue reduction of costs through economies of scale and standardization and leverage of resources through the formation of strategic alliances and partnerships across borders for the creation of value-added activities which include launching new products, extending operations to new territories, and outsourcing (Yip, 2003). They will need to initiate significant internal organizational changes to improve international business performance. Firms need to develop their executive competencies, especially in terms of strategy and taking action to globalize and become more technologically sophisticated (Huggins and Izushi, 2008; Tolbert *et al.*, 2002). For developing country multinational firms, competitive advantages come from increased technological skills but also from relationship capabilities to use complementary resources and experiences of different partners to gain opportunities in international operations (Pananond, 2007). Executive competencies are urgently needed to be developed if Thailand is to survive in the global market competition. Thailand's future competitiveness will depend on companies that emphasize specialization and innovation rather than cost competitiveness. Firms also need to be more proactive in gaining results from R&D activities (World Bank, 2008).

A list of constructs and definitions of the key concepts which are of critical importance for companies involved in international business are summarized in Table I. These constructs have been selected because they are proven measures of the key strategic directions (SDs), competencies, and global actions (GA). The content validity of these constructs is acceptable based on the review of literature.

Conceptual model

Based on the conceptual model, six propositions are considered. The first relates to SDs:

- P1. SDs increases the globalization performance of Thai firms.
- P2. SDs improves the technological development of Thai firms.

Strategic direction

SD is the first construct to be considered. Firms successfully address the opportunities and obstacles of external trends through a strategic emphasis based on their business vision and mission (Westphal and Frederickson, 2001). SDs relate to the achievement of specific challenging goals. Proactive is defined by Erdogan and Bauer (2005) as taking dramatic strategic actions to influence changes and belief that unstable, rapidly changing environments provide more opportunities. Deliberate relates to analysis before making important strategic decisions. This includes a pattern of decisions that

Construct	Definition
1. SD	The company's present strategies and current situations to successfully address opportunities by external trends and serve as the foundation for developing corporate strategy related to the achievement of globalization challenges (Westphal and Frederickson, 2002)
2. SMC	The integral management of strategic competencies that are used to build a framework analyzing the current capabilities and resources available of organization to achieve business strategies (Assen, 2000). They are also the components of the strategic development process of the company (May, 1999)
3. GA	Going global business actions are the company's international activities that emphasis on international business with focusing on similarities, standardization, homogenization, concentration, and coordination on a worldwide basis to create a winning offering on a global business scale (i.e. economies of scale, sourcing advantages, exploiting a global network, and enhancing bargaining (Keegan and Green, 2000; Yip, 2003)
4. Globalization Performance (GP)	The level or quantity of a firm's activity in the international market. As globalization expands, firms increase the number of sales abroad, assets abroad, international employees and overseas investments (Harris, 2002; Luo, 2005; PriceWaterhouseCoopers, 2005)
5. Technology development (TD)	Technological development results from corporate strategy in globalization era. The broadening geographical inter-linkages of products, markets, firms and production factors, in more countries enhance technological development (Gaburro and O'Boyle, 2003). This relates to R&D spending, new product and process development and technological expertise (Rycroft, 2003; Archibugi and Pietrobelli, 2003)

Table I.
Constructs and
definitions

seeks advice from all the firm's functional areas and outside experts (Fuller-Love and Cooper, 2000). Innovative is the implementation of a new idea, practice, or product with an emphasis on R&D and technological improvement (Huang and Lin, 2006). Strategic risks are risks that arise in pursuit of business objectives – either by exploiting opportunities and/or reducing threats (Emblemsage and Kjolstad, 2002). Competitive strategy is determined by the firm's speed relative to competition, specialization, and how it uses its advantages. These activities build value for customers and create and maintain competitive advantages over rivals (Porter and Schwab, 2003).

Strategic management competencies (SMC)

P3. Strategic competencies increases the globalization performance of Thai firms.

P4. Strategic competencies improves the technological development of Thai firms.

Competencies are described as the knowledge, expertise, and capabilities which have been collectively learned by a firm which enable it to distinguish its performance from its competitors and enhance its capabilities to meet customer needs (Yang *et al.*, 2006). SMC relate to differentiation strategies and organizational actions, which are superior to the competition. They provide distinctive advantages and superior performance

(Draganidis and Mentzas, 2006). Several SMC have been identified as critical for international business. The first is a process orientation integrating functions within the firm and throughout the supply chain (Fawcett and Cooper, 2001; Price, 2003). A customer orientation, with an emphasis on customer value, building customer equity, and responding to differences in their needs and preferences (Slater and Narver, 1998). Relationship building includes internal and external interactions with customers, partners, and competitors (Zineldin, 2004). Implementation is the competency of transforming strategic intentions into actions based on organizational capabilities and operational skills (Wu *et al.*, 2004). Organizational competency includes an organizational design that is non-hierarchical with more effective communication and less conflict (Atkinson, 2006).

Global actions

P5. GA leads to a higher global performance of Thai firms.

P6. GA enhances the technological development of Thai firms.

Keegan and Green (2000) define going global as a business design to create a winning offering on a global scale. Global vision is a strategic vision that is clearly stated to be global and ensures the realization of the vision (Kilpatrick and Silverman, 2005). Global standard is a global position or level of competencies that achieve an international portfolio across regions (Sanchez *et al.*, 1996). Global focus reflects an attention to both external and internal issues by managing and organizing on a global basis to support its global standard (Keegan and Green, 2000). Global partnership is a company's potential to support global cooperation with other firms and have an effective process to select partners (Todeva and Knoke, 2005) and operate businesses peripheral to their core competencies through partnership with those with personalized experiences, and contacts (Pananond, 2007). Global knowledge management is facilitating knowledge-related activities ranging from learning, leveraging, and sharing knowledge from around the world in any part of organization (Halawi *et al.*, 2006). Global implementation relates to executing a global business process, a complementary organizational structure, and to achieving global results (Okumus, 2003). Global project management includes coordinating multinational projects in distributed environments with participants throughout the world involving international business activities which are necessary to increase the globalization level of a company (Davies and Hobday, 2005).

Globalization performance

Globalization enables firms to access worldwide resources, expand into many new overseas markets, and increase the global economy (Jones, 2002). This results in improved global performance measured by the trans-nationality index which includes the level of foreign business activities such as sales, numbers of branches, assets, and employees (Contractor *et al.*, 2003; Hergert, 2004). As the globalization level of the firm increases, more sales, profits, assets, and investments come from the performance of overseas operations. Various indicators of a firm's globalization performance have been proposed. The most common measure has both a strategic dimension (e.g. global activities and foreign adaptation) and a financial dimension (e.g. sales, profits, assets, and investments from overseas operations). Each of these measures has been used previously in the international business literature by the United Nations in the World

Investment Report (2007). The foreign sales percentage was utilized by Hergert (2004). Foreign asset percentage was used by Dowell *et al.* (2000). Contractor *et al.* (2003) proposed the proportion of foreign employees as an indicator of globalization.

Technology development

Technological development has been complementary with corporate strategy as globalization expands (Gaburro and O'Boyle, 2003). R&D spending on the generation and acquisition of the knowledge-based innovation has increased (Rycroft, 2003). Firms try to profit from technology development through new technological processes and products to international markets. This is crucial in responding to global competition and increasing the level of technological expertise (Rycroft, 2003).

Methodology

This study is based on a preliminary survey. Factor analysis is used to define the underlying structure of the interrelationships among a large number of variables. The scale reliability of each construct is determined by Cronbach's alpha. These include SD, SMC, and GA. Logistic regression analyzes the variables related to globalization performance and technology development.

Data collection

This study used a self-administered questionnaire with a purposive sample. A questionnaire was distributed to target respondents who are participants in the executive MBA in international and local programs at three academic institutions in Thailand. The sample included 64 executives. The respondents were divided between international programs in English ($n = 32$), and local programs in Thai ($n = 32$). For the local (in Thai) programs, 34 percent of the local program respondents were in manager positions and about 28 percent of the respondents were in operations and production. Slightly over 21 percent of respondents were from the IT industry. For the international program respondents, 31 percent had responsibility in marketing and sales. The largest industry sector for international respondents was the financial sector (16 percent).

Scale reliability

The reliability of SD, strategic competencies, and GA was assessed. The alpha value was high for SD (0.873), strategic competencies (0.941), and GA (0.978) (Table II). This level of reliability is very likely related to the educational and experience level of the respondents.

Factor analysis

A survey instrument with three major sections SD (18 items), SMC (22 items), and GA (29 items) was developed. The instrument is based on a thorough review of the literature and suggestions from experts in international business (academicians and

Respondent	SD	Cronbach's alpha	
		Strategic management competency (SMC)	GA
International program	0.897	0.940	0.979
Local program	0.830	0.939	0.978
Overall	0.873	0.941	0.978

Table II.
Scale reliability

practitioners). To explore the conceptual framework, principal component factor analysis with varimax rotation was used. Only factors with eigenvalues >1.0 were included. Factor loadings which are 0.50 or greater are considered practically significant. Factor analysis is also used to confirm the variables in the different sections of the survey.

Strategic directions

Table III shows the analysis of strategic direction with a six-factor structure with 18 items. These accounted for 73 percent of the variance. Factor 1 contains six items related to adapting to external business environments. These were innovation, technology, and competitors. This factor was named as proactive. Factor two has

Factor	Variables	Factor loadings	Eigenvalue	Variance (%)
Factor 1: proactive	SD4 Strong emphasis on R&D and innovation	0.786	6.267	34.819
	SD8 The long-term implications of change in technology	0.741		
	SD11 Evaluation of strategic alternatives	0.567		
	SD12 Anticipates competitor's response	0.582		
	SD13 Emphasizes marketing tried and true products/services	0.743		
	SD14 More new products and services than competitors	0.732		
Factor 2: economic focus	SD7 Outside experts in strategic decisions	0.712	2.041	11.339
	SD17 Cut costs are an important goal	0.673		
	SD19 Number one priority is innovation	0.539		
	SD20 Taking advantage of economies of scale	0.749		
Factor 3: deliberate	SD2 Identifies causes of problems before making decisions	0.657	1.475	8.195
	SD9 Seeks advice from functions in strategic decisions	0.757		
	SD16 Whatever it takes to arrive at a good decision	0.746		
Factor 4: competitive	SD10 Specialized needs of select clients	0.862	1.252	6.954
	SD18 Products are sold to specialized markets	0.796		
Factor 5: risk	SD5 Emphasis on long-term goals and strategies	0.631	1.147	6.374
	SD15 Dramatic rather than minor changes	0.821		
Factor 6: change oriented	SD1 Changing environments provide more opportunities	0.853	1.024	5.692

Table III.
Factor analysis of SD

an economic focus with four items that indicate financial outcomes. They are return on investment, cost, and other advantages. Factor 3 includes three items related to organizational decisions. These include specifying causes of problems before making decisions, consulting functional managers, and determining an appropriate decision. This was labeled as deliberate. Factor 4 relates to competitiveness defined as product and market specialization. Strategic risk consists of two items related to managing uncertainty, emphasizing long-term strategies, and responsive to changes. Finally, change orientation emphasizes identifying opportunities in a proactive approach.

Strategic management competencies

The factor analysis of SMC produced four factors with 69 percent of the variance. This is presented in Table IV. All the SMC were specified in the factor solution. The first factor, strategy process, contains nine items related to collaborative management, i.e. inter-functional process, partner relationships, and management development. Competitive capabilities include seven items related to business uniqueness,

Factor	Variables	Factor loadings	Eigenvalue	Variance (%)	
Factor 1: strategy process	SMC1	Information about customers, competitors	0.599	10.014	45.519
	SMC2	Inter-functional process	0.724		
	SMC3	Learning organization	0.727		
	SMC4	Shared vision	0.748		
	SMC15	Strong internal relationship	0.775		
	SMC16	Relationship partners	0.734		
	SMC17	Organization structure	0.679		
	SMC18	Management development	0.792		
	SMC19	Strategic actions	0.736		
Factor 2: competitive capabilities	SMC8	Mapped capabilities	0.625	2.261	10.275
	SMC9	Unique compared to competitor	0.811		
	SMC10	Difficult to copy	0.805		
	SMC11	Highly promising customer groups	0.598		
	SMC12	Superior to the competition	0.782		
	SMC13	Distinctive capabilities	0.673		
	SMC22	Competitiveness more global	0.519		
Factor 3: customer oriented	SMC5	Superior customer value	0.755	1.709	7.767
	SMC6	Commitment to customer equity	0.699		
	SMC7	Customer needs and preferences	0.765		
Factor 4: organizational design	SMC14	Key relationships	0.597	1.199	5.45
	SMC20	Design facilitates competitiveness	0.62		
	SMC21	Process oriented and networked	0.609		

Table IV.
Factor analysis of SMC

competitiveness, distinctive, and superior capabilities. The next factor is customer oriented with three items. These are commitment to customer value, equity, needs, and preferences. The last factor, organizational design, contains two variables, network and process design.

Global actions

Table V identifies the four factors extracted for GA, accounting for 80 percent of the total variance. The first factor is global standard, with 15 items emphasizing a worldwide understanding and global vision. Global partnership includes six items, indicating global cooperation and relationships. Global projects relates to specific programs or activities worldwide. The last factor is described as global focus including sales, employees, and assets outside the home country.

Summarizing the results for each construct, the reliability for the composite variables was suitable. The factors were acceptable for representing the concepts in the model described in Figure 1.

Analysis

The independent variables were SD, SMC, GA, the respondent, and firm background factors. SD was composed of six variables, which were proactive, deliberate, economic focus, competitiveness, risk, and change oriented. SMC identified four indicators, such as strategy process, competitive capabilities, customer-oriented, and organizational design. GA were composed of global standard, global partnership, global projects, and global focus. The respondent's background includes type of EMBA program, position, and function. Finally, the firm's background consisted of level of sales, market value, ROE, and industry type.

Two dependent variables were considered. The first variable was the global performance level based on the transactional index and the second was the level of technology development. The globalization performance included the percentage of sales outside of Thailand, percentage of assets, and percentage of employees outside of Thailand. Technology development included the number of new products developed, total investment in new technologies, total investment in R&D, and number of R&D employees.

Logistic regression was used to determine the relationships of the independent variables with the level of globalization and technology development. In this analysis, the dependent variable is binary. Assessing the goodness-of-fit of the model determines the appropriateness of the model. The probability of the observed results is known as the likelihood, the value of -2 times the log of the likelihood value referred to as $-2LL$ was used. The determination of the significance of the coefficients was done by the χ^2 test. In the final stage of analysis, the Wald statistics was used to identify the independent variables that are good predictors. If the Wald statistic is <0.1 , then the parameter is significant in the model.

The independent variables were tested with a binary dependent variable for the globalization performance and technology development; each was coded as one for high level of globalization or technology development and zero for low level. Dummy variables included the international program including foreign participants, top management position, international operations strategy or business development function, sales volume, market share, ROE, and high-technology industry. Each of these

Factor	Variables	Factor loadings	Eigenvalue	Variance (%)				
Factor 1: global standards	GA1	A vision to be global	0.558	18.522	63.867			
	GA2	Vision effectively developed	0.628					
	GA3	Perform at a global standard	0.799					
	GA4	The global gap	0.771					
	GA5	Action strategy	0.793					
	GA6	Global position	0.595					
	GA8	Customers on a worldwide basis	0.705					
	GA9	Managed global basis	0.734					
	GA10	Organized worldwide basis	0.719					
	GA17	Global business performance information	0.587					
	GA18	Supportive global business IT	0.639					
	GA19	Knowledge on a world wide basis	0.687					
	GA20	A sufficient skill mix	0.731					
	GA21	Implement global vision	0.678					
	GA25	Priorities for global implementation	0.63					
	Factor 2: global partners	GA11	Managing locally and globally			0.627	1.972	6.801
		GA12	Strategic partners with global reach			0.789		
GA13		Strategic partners which complement	0.825					
GA14		Process to select strategic partners	0.796					
GA15		Support global cooperation	0.743					
GA16		Source ideas around the world	0.73					
Factor 3: global projects	GA22	Have global projects	0.77	1.717	5.921			
	GA23	Global projects link to the organization	0.817					
	GA24	Action programs with global vision	0.669					
	GA26	Leadership in global projects	0.574					
Factor 4: global focus	GA7	Company as a global supplier	0.487	1.084	3.738			
	GA27	Sales outside of Thailand	0.893					
	GA28	Employees outside Thailand	0.877					
	GA29	Assets outside Thailand	0.836					

Table V.
Factor analysis of GA

was coded 1. This allowed the analysis of how the demographic and background variables related to globalization performance and level of globalization performance.

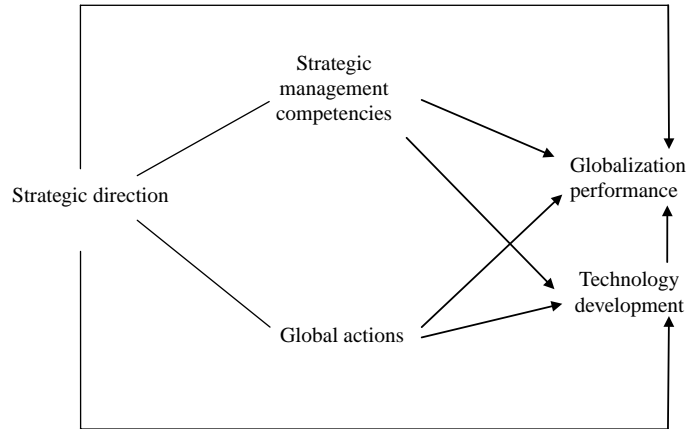
Results

Two models based on globalization performance and technology development as dependent variables were developed. All the logistic coefficients for the strategic dimensions, including direction, competencies, and GA are included in the analysis.

Globalization performance

As shown in Table VI, considering globalization performance, SD, strategic competencies, and GA explains 60-82 percent of the variance in performance.

Figure 1.
The conceptual model of globalization performance and technology development



The logistic regression can predict 94 percent of the globalization perceived by these executives. This model has a good fit to the data. Global standards, partners, and focus are all positively and significantly related to the level of globalization performance. For these executives, SD, strategic competencies, and GA explain 87.5 percent of the level of technology development. The GA including standards, partners, projects, and globalization focus significantly increase technology development.

In Table VII, three background characteristics were related to the perceived globalization performance. These included type of EMBA, position, and function. There was no significant relationship to the pseudo R^2 of either variable.

For technology development, the background variables could explain 15-20 percent of the variance and predict 65 percent of the cases. A function related to international business was the most significant variable. Top-level position was also significantly related to the perceived technology development.

Firm characteristics such as industry and type of performance were also considered. This is shown in Table VIII. Sales, market value, ROE, and industry type explain 46 percent to 62 percent of the variance in globalization performance. These variables can predict 83 percent of the cases. High technology and ROE are correlated with the level of globalization; market value has the biggest impact on globalization.

Related to the level of technology development, the firm characteristics overall have a significant pseudo R^2 of 55-73 percent. These variables explain 90 percent. In specific terms, only market value has a significant correlation.

Discussion

In this study, factor analysis has specified three dimensions of strategy including SD, strategic competencies, and GA. The study has implications for both academics and practitioners for future international business. The three strategic dimensions do influence the perceived level of globalization performance and technology development.

The logistic regression analysis identified factors determining the level of globalization and technology development. GA significantly increase globalization performance. These included global standard, partners, and focus also related to GA and how globalization performance significantly increases technology development as well.

<i>Model Summary</i>	<i>Value for (GP)</i>		<i>Value for (TD)</i>		<i>Sig. ≤ 0.10</i>		<i>Exp(B)</i>	
	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>
Model Summary - 2 Log Likelihood (-2LL)	26.123		35.193					
Cox and Snell R^2	0.605		0.567					
Nagelkerke R^2	0.821		0.756					
Model classification								
Overall, percentage of predicted results (%)	93.8	87.5						
<i>Independent variable</i>	<i>B</i>							
	<i>LG</i>	<i>TD</i>	<i>Wald</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>
Proactive	-0.349	-0.674	0.081	0.729	0.776	0.393	0.705	0.509
Deliberate	3.305	0.002	2.248	0.000	0.134	0.998	27.241	1.002
Economic focus	-2.272	-0.586	1.794	0.535	0.180	0.464	0.103	0.557
Innovative	1.800	0.299	0.647	0.136	0.421	0.712	6.049	1.349
Risk	0.756	0.163	0.963	0.054	0.326	0.816	2.129	1.177
Competitive	1.600	0.207	1.525	0.106	0.217	0.745	4.951	1.230
Strategy process	-2.685	-0.131	1.689	0.017	0.194	0.896	0.068	0.877
Competitive capabilities	0.596	-0.412	0.315	0.262	0.575	0.608	1.816	0.662
Customer oriented	0.473	-0.058	0.221	0.006	0.638	0.937	1.605	0.944
Organizational design	-1.697	-0.327	1.185	0.270	0.276	0.603	0.183	0.721
Global standards	3.009	1.765	3.162	3.762	0.075	0.052	20.273	5.843
Global partners	1.452	1.304	3.819	2.718	0.051	0.099	4.271	3.648
Global projects	-0.238	2.627	0.041	7.005	0.839	0.008	0.788	13.834
Global focus	5.206	2.238	4.323	10.918	0.038	0.001	182.447	9.377
Constant	-0.189	-0.406	0.030	0.247	0.863	0.619	0.828	0.667

Table VI.
Logistic regression for
strategic dimensions for
globalization
performance and
technology development

Table VII.
Logistic regression for
respondent's background
and level of globalization
and technology
development

<i>Model summary</i>	<i>Value for GP</i>	<i>Value for TD</i>						
Model Summary								
- 2 Log Likelihood (- 2LL)	79.989	78.149						
Cox and Snell R^2	0.084	0.152						
Nagelkerke R^2	0.114	0.203						
Model classification								
Overall, percentage of predicted results (%)	64.1	65.6						
<i>Independent variables</i>		<i>B</i>	<i>Wald</i>		<i>Sig.</i>		<i>Exp(B)</i>	
	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>
EMBA program	0.041	- 0.126	0.006	0.052	0.940	0.819	1.042	0.881
Position	- 1.018	- 1.533	1.434	3.219	0.231	0.073	0.361	0.216
Function	0.923	1.214	2.836	4.604	0.092	0.032	2.518	3.367
Constant	- 0.717	- 0.195	2.542	0.202	0.111	0.653	0.488	0.823

Table VIII.
Logistic regression for
firm background and
globalization
performance and
technology development

<i>Model summary</i>	<i>Value for GP</i>	<i>Value for TD</i>						
Model Summary								
- 2 Log Likelihood (- 2LL)	44.244	36.135						
Cox and Snell R^2	0.459	0.548						
Nagelkerke R^2	0.622	0.730						
Model classification								
Overall, percentage of predicted results (%)	83.6	90.2						
<i>Variables in the equation</i>		<i>B</i>	<i>Wald</i>		<i>Sig.</i>		<i>Exp(B)</i>	
<i>Independent variable</i>	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>	<i>LG</i>	<i>TD</i>
Sales	1.149	1.291	1.744	1.938	0.187	0.164	3.156	3.636
Market value	2.154	4.009	5.959	14.446	0.015	0.000	8.615	55.082
ROE	1.970	0.381	4.767	0.150	0.029	0.698	7.167	1.463
Industry type	- 0.291	0.090	3.400	0.279	0.065	0.598	0.747	1.094
Constant	- 1.444	- 3.296	1.436	4.457	0.231	0.035	0.236	0.037

The key background characteristics related to globalization performance and technology development include the executive's position related to strategy and business development, such as international operations and marketing. This type of executive has a better understanding of globalization and how to improve the level of international performance. Thai firms with a higher market value and ROE also had a higher level of globalization performance and technology development. The background characteristics are important for Thai companies to recognize. These firms have resources already available in executives in international operations who have a global understanding and who can lead projects for international M&A or innovation programs.

The findings suggest that to increase globalization performance and improve technology development, Thai executives should implement global standards. Thai firms should emphasize implementing the international business approaches, working with potential global partners, and increasing cross-border projects to achieve higher global performance. These actions will significantly improve the international presence of the Thai company and increase technology development. This strategic

approach can be accomplished by working with global customers, investing abroad, and expanding international sales and assets through participating in a global value chain. A global-oriented SD will help Thai firms reach a high level of competency in international operations. To complement these strategic actions, Thai executives need global vision and should benchmark global companies with superior international standards.

The firm's characteristics such as market value and ROE are also related to globalization performance and technology development. High market value and ROE firms are more likely to undertake international business expansion and technology projects.

Except for the executives who have direct relationships to global business, most of the participants in executive MBAs, both in international and local programs, do not have the competencies necessary for developing global business. Executive programs in Thailand need to develop coursework that emphasizes global standards, partnerships, and projects to be able to enhance international business performance and the competency development required for greater globalization and innovation.

Limitation of study

This preliminary study has several limitations. First, the survey included respondents of a few executive MBA programs. This type of respondent is typical of Thai executives who have experience and have good skills in English. The sample size is limited and does not include a wide variety of companies. Second, the data were attitudinal. There is a potential bias because the actual level of globalization performance and technology development of the companies in the sample is unknown. The cross-cultural understanding of executives in a developing economy like Thailand is limited. The interpretation of the analysis and its implications needs to consider these limitations.

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