A new model of strategic thinking competency

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Abstract

Purpose – This paper seeks to present new insights into strategic thinking, proposing a model of strategic thinking competency.

Design/methodology/approach – To find new knowledge, the research applies the Straussian grounded theory research method using multiple sources and techniques of data inquiry: in-depth interviews, observations, literature review, and related published documents. The sample cases are business leaders of leading high growth companies in their respective markets, representing eleven different industries in Thailand.

Findings – Among many new knowledge, the study found seven characteristics of strategic thinking that impacts strategy formulation, strategic actions, and business performance: conceptual thinking ability, visionary thinking, analytical thinking ability, synthesizing ability, objectivity, creativity, and learning ability. This set of abilities and skilled are termed "strategic thinking competency".

Research limitations/implications – In-depth interview data inquiry method has potential bias towards positive information. Although the study covers many industries, the small number of sample cases limits degree of generalization. A constraint of qualitative research method in interpretation of the results is reduced by comparing empirical results to the literature.

Practical implications – The "strategic thinking competency" model offers a framework for developing strategic thinking of business leaders and managers which contributes to better strategy and better business performance. Human resource developers may apply the model for designing training programs to develop better strategic thinkers.

Social implications – Better strategic thinking could help improving efficiency and effectiveness of business and general management.

Originality/value – The study introduces a model of "Strategic Thinking Competency" with seven characteristics, proposing a new way of defining strategic thinking.

Keywords Strategic thinking, Strategic management, Strategy development, Management, Competency, Business administration, Leadership

Paper type Research paper

Introduction

"Strategic thinking" is important for strategy development and strategic management (Andrews, 1980; Porter, 1987; Zabriskie and Huellmantel, 1991; Mintzberg, 1994a, b; Mintzberg et al., 1998a, b; Liedtka, 1998; Macmillan and Tampoe, 2000; Saloner et al., 2001; Bonn, 2001; Graetz, 2002; Abraham, 2005), and contributes to corporate outputs, and profitability (Bowman and Helfat, 2001). The relationship between strategy and performance is confirmed by the longitudinal case study of McAdam and Bailie (2002) on business performance measures and impact on strategy. In addition, Kraus et al. (2006), in their study of strategic planning in small enterprises, conclude that formalization in strategic planning of firms is positively related to growth of the firm. A recent extensive literature review by Steptoe-Warren et al. (2011) found that strategic

competencies are important to strategic management yet there is no agreement within the literature on what those competencies are.

Despite a wide consensus on the importance of strategic thinking to business performance, an extensive literature review has found few studies that define what strategic thinking is or empirically verify how strategies and strategic actions business leaders in practice take relate to strategic thinking.

To gain new insights, the study applies the Straussian grounded theory research approach, using in-depth interviews as the primary source of empirical data. This grounded-theory based study aims to find new knowledge about "strategic thinking," answering a research question what constitute strategic thinking that impacts strategies leading to successful business, by empirically studying business actions, applied strategies, and behaviors and thoughts of successful business leaders. The empirical data were compared to the literature during the data analyzing and synthesizing stage.

This paper proposes a model of strategic thinking competency, presenting new insights about characteristics of strategic thinking that impact strategies and business performance. This new model offers a new way of looking at strategic thinking as a competency of business leaders, which has not been found in existing literature. The result of the study can be used as a framework for developing strategic thinking of individuals, through self-development or human resource development programs. Strategic thinkers could help the organization to better respond to the challenges of the changing business environment (Tavakoli and Lawton, 2005). The paper may trigger further studies about the application of strategic thinking or about other competencies of business leaders which impact business performance.

Literature review
This study is based on the basic concept of strategic management. Strategic management is a set of decisions and actions that result in the formulation and implementation of plans designed to achieve an organization's objectives (Pearce and Robinson, 2000), and relates to business performance (Porter, 1987; Mintzberg, 1994a, b; McAdam and Bailie, 2002). To allow new insights to emerge, the grounded-theory-based study does not assume any theory in strategic thinking for the study (Strauss and Corbin, 1998; Creswell, 1998). The different concepts and theories about strategic management from the literature reviews provide inputs for designing interviews and analyzing the empirical data.

Strategic management process
Strategic management is defined as a process of building "capabilities" that allows a firm to create value for customers, shareholders, and society (Nag *et al.*, 2007). Detailed process is a way to achieve desired strategic outcomes (Whittington, 1996; Jarzabkowski *et al.*, 2007). Most general models of strategic management are similar (Feurer and Chaharbaghi, 1997), they consist of: strategic vision formation; information analysis; objective setting; strategy formulation; strategy implementation; and performance evaluation (Thompson and Strickland, 1996; Pearce and Robinson, 2000; Macmillan and Tampoe, 2000; Saloner *et al.*, 2001). The general strategic management process is used as a framework to empirically study the links between business performances, business growth in this case, and strategic thinking which takes place during the process.

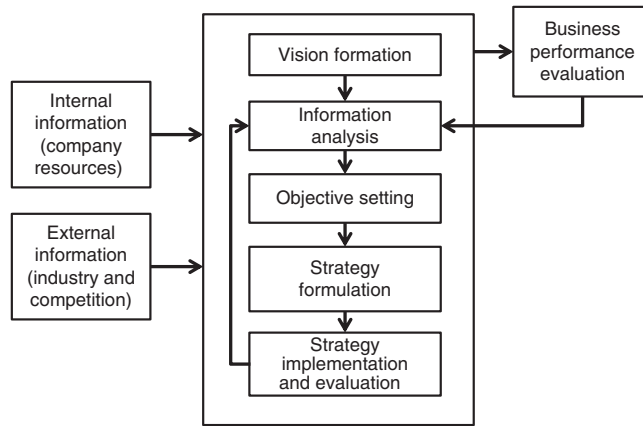The general strategic management process is illustrated in Figure 1.

Figure 1.
General strategic
management process

Strategy formulation

Strategy formulation is a continuous process involving different levels of decisions (Pettigrew, 1977, p. 49). This study recognizes different views of Quinn (1980a, b) and Lindblom (1959, 1979) on "incrementalism," which declares that strategies are logically incremental, emerging from an iterative process rather than through formulations of total strategies; and views of Whittington (1996) which proposes a concept of "strategy-as-practice" viewing strategy formulation at the micro level as an on-going activity. An empirical study by Miller (1987) about strategy making and implication of performance found that innovative and successful firms have the strongest structure-and-strategy relationships.

Based on different views of strategy formulation found in the literature review, this empirical research studied the behaviors and thoughts of business leaders: how they determine the basic goals and objectives of their companies, how they adopt courses of action, and how they allocate resources necessary for carrying out these goals (Chandler, 1962 in Feurer and Chaharbaghi, 1997). The study also aims to learn more about how the business leaders identify opportunities and risks, how they determine the company's resources, the roles of their personal values, and how they acknowledge the non-economic responsibilities towards the society (Andrews, 1980).

This study also acknowledges different views of creating corporate strategy; the market-based view, and the resource-based view (RBV), which shares a common aim to maximize the performance of an organization (Feurer and Chaharbaghi, 1997, p. 58). The market-based view of corporate strategy creation states that "strategy" is about unique positioning and unique activities for competitive advantages and sustainability. It emphasizes identifying attractive markets to compete in and creating competitive advantages for superior performance (Porter, 1985, 1996). The RBV emphasizes the internal resources of the firm to conceive and implement strategies (Barney, 1991). Supporting the market-based view, Hart (1992, p. 121) introduces an integrative framework for the strategy making process, stating that high-performing firms appear capable of blending competing frames of reference in strategy making.

Strategic decision, strategy implementation, and business performance

Strategic decision making is a fundamental capability leading to superior performance. Firms with high performance as regards to profitability, growth, and market place

reputation have a superior strategic decision-making process (Eisenhardt, 1999, p. 72). This study looked into the actual strategic actions and the results of strategic decisions that relate to business growth, recognizing that strategic planning itself is not strategic but a "rational" decision-making process (Hamel, 1996; Porter, 1996; Andrews (1980, in Mintzberg *et al.*, 1998a, b, p. 54).

Strategy implementation includes the organization structure and relationships, organizational processes and behavior, and top-management leadership (Andrews, 1980). This empirical study recognizes the components of strategy implementation as communication, adoption, interpretation, and action (Aaltonen and Ikavalko, 2002), as well as organizational alignment, complexity reduction, and issue resolution system (Freedman, 2003). Sterling (2003) proposes a checklist for successful strategy implementation: align organization design and capabilities with the strategy, consider potential competitors' reactions to the strategy, involve managers in the strategy development process, exercise consistent and persistent communication, implement careful action planning and budgeting, take care of appropriate monitoring, and plan for accountability.

Strategic thinking
Most reviewed literature about strategic thinking either emphasizes the roles of strategic thinking in strategic management or proposes different dimensions of definitions. However, a common definition of strategic thinking in terms of its characteristics is not found. Hanford (1995) suggests that the ability to think strategically requires developing of: thinking concepts, thinking skills, thinking styles, and thinking techniques. A study by Tavakoli and Lawton (2005) signifies that the greater the sum total of strategic thinking and strategic thinkers in the organization, the more readily and effectively the organization can respond to take advantage of changes occurring in today's business environment.

The common characteristics of strategic thinking mentioned by a number of literatures are: visionary, creative, and synthetic. Other characteristics mentioned by some literature are analytical, conceptual, divergent, and systematic. Rowe *et al.* (1986, p. 23) define strategic thinking as a process of thinking about an organization and how to go about developing a strategy which includes vision, creativity, flexibility, and entrepreneurship. Mintzberg (1994a, b) describes strategic thinking as being creative, synthesis, and intuitive. Similarly, Heracleous (1998) describes strategic thinking as synthetic, creative, and divergent. Thompson and Strickland (1996) explained strategic thinking as analytical, conceptual, and visionary. They also add that thinking strategically requires knowledge and synthesizing skills. Our literature review has found only four papers specifically discussed about strategic thinking. Liedtka (1998) conceptualizes that strategic thinking includes five elements: having a system perspective, being intent-focussed, thinking in time, being hypothesis-driven, and acting in an intelligently opportunistic manner. Graetz (2000, p. 457) suggests the role of strategic thinking as "seeking innovation and imagining new and very different futures that may lead a company to redefine its core strategies and its industry." Graetz (2002) combines the attributes of strategic thinking suggested by Mintzberg (1994a, b) and Heracleous (1998) and added innovative thinking. Bonn (2001) proposes "strategic thinking" as a core competency of an organization. Bonn (2005) defines "strategic thinking" as a way to solve strategic problems, combining a rational and convergent strategic approach with a creative and convergent thought process and proposes a conceptual framework of strategic thinking which consists of system thinking, creativity, and vision.

The attributes of "strategic thinking" mentioned in the reviewed literature are summarized in Table I.

Other pieces of literatures showing different thoughts on strategic thinking are summarized by the years of publication as follows.

Tregoe and Zimmerman (1980, p. 12) proclaim that corporate survival lies in the clarity of strategic thinking, facing the future knowing what the company wants to be and how to get there. Porter (1987, p. 19) emphasizes that, to be effective, strategic planning must use a proper process and that strategic thinking is essential for strategic planning. Zabriskie and Huellmantel (1991) claim that it is necessary to identify the real substance of strategic thinking. They point out that it is important to know what the capabilities the senior management should have. Mintzberg (1994a, b, pp. 381-382) and Hanford (1995) propose a concept of the differences between strategic and operational thinking which include: longer term vs short term; conceptual vs concrete; reflective/learning vs action/doing; identification of key issues/opportunities vs resolution of existing performance problem; breaking new ground vs routine/on-going; effectiveness vs efficiency; "hands-off" approach vs "hands-on" approach; and "helicopter" perspective vs "on-the-ground" perspective.

Strategic managerial tasks[a]	Abilities and skills mentioned in the literature
1. Vision formation	Visionary and conceptual skills (Thomson and Strickland, 1996)
	Industry foresight (Hamel and Prahalad, 1994)
	Conceptual thinking (Herrmann, 1996)
	Visionary thinking (Bonn, 2001)
	Intuitive and innovative thinking (Graetz, 2002)
2. Information analysis	Knowledge, analytical skills, synthesizing skills (Thomson and Strickland, 1996)
	Conceptual thinking (Herrmann, 1996)
	An ability to see opportunities and to conceptualize new markets (Kim and Mauborgne, 2005)
3. Strategy formulation	Having a system perspective, intent-focussed thinking, hypothesis-driven thinking (Liedtka, 1998)
	System thinking (Bonn, 2001)
	Intuitive and innovative thinking (Graetz, 2002)
	Analytical and conceptual abilities (Andrews, 1980)
	Synthesizing skills (Mintzberg, 1994a, b)
	Conceptual thinking (Herrmann, 1996)
	Knowledge, analytical skills, synthesizing skills (Thomson and Strickland, 1996)
	Ability to think in time, being intelligently opportunistic (Liedtka, 1998)
	Creativity (Bonn, 2001)
	Synthesizing, divergent thinking, creative, intuitive, and innovative thinking (Graetz, 2002)
	Ability to synthesize knowledge concerning company resources and activities (Kim and Mauborgne, 2005)
	Learning ability (Brown, 2005)
4. Strategy implementation and evaluation	Administrative skills (Andrews, 1980)
	Learning ability (Brown, 2005)

Table I.
Abilities and skills required for performing strategic managerial tasks

Note: [a]Key managerial tasks of strategic management presented by Thomson and Strickland (1996)

Macmillan and Tampoe (2000) emphasize that strategic thinking is closely related to strategic actions and is an important part of strategic management. Mintzberg (1994a, b, in Mintzberg *et al.*, 1998a, pp. 126-127) introduced a concept of strategic thinking as "seeing": seeing ahead and behind, seeing above and below, seeing beside and beyond, and seeing it through. Boar (2000) points out that strategists think about multiple issues concurrently and that synthesis lies at the heart of strategic thinking. According to Herrmann's (1996, pp. 6-8) "whole brain model," "strategic thinking" is largely a process which deals with futures, patterns, trends, and nuances that require ability to sense emerging opportunities. Macmillan and Tampoe (2000) stress that strategic thinking is a central part of the strategy formulation process composing of strategic intent, strategic choices, and strategic assessment. Saloner *et al.* (2001) depict "strategic thinking" as the ability to develop and maintain conceptual maps of a business, and the ability to tie together changes initiated outside the firm's context, actions, and performance. Strategic thinking first requires the conceptualization of a new strategy and later thinking through how changes in the external and internal environment will impact the strategy, they added.

In addition, in the strategic management literature, there are a number of other studies related to strategic thinking. Williamson (2003) proposes a concept of strategic innovation consisting of a set of abilities and skills: strategic intent, analytical skills, synthesizing skills, and portfolio of ideas. Kim and Mauborgne (2005) introduce the "blue ocean strategy," which supports the need for strategic thinking, and propose that strategic thinkers should be able to see emerging new opportunities and to conceptualize new markets. Looking from knowledge management view, a study by Tavakoli and Lawton (2005) concludes that knowledge management has a significant role in increasing and improving strategic thinking. A study related to management competency by Brown (2005) indicates that the involvement of different levels of management in the strategy formulation of the organization can enhance the potential for strategic management development. An empirical study by Evans *et al.* (2009) emphasizes the importance of strategic thinking in evaluating and leveraging new technologies. Goldman (2012) points out that one of the common leadership practices in organizations is human resource development as regards to strategic thinking.

To observe strategic thinking, the study also follows the suggestion by Tovstiga (2010) that strategic thinking process includes developing strategic questions, forming issues, developing insight using strategic analysis, assessing competitive landscape, and generating strategic options.

Strategic managerial tasks, abilities, and skills
The first stage of data analysis indicated that "strategic thinking" is part of the abilities and skills required to perform strategic managerial tasks and that business leaders' abilities and skills have an impact on strategy formulation and strategy implementation. This is in line with the suggestion of Sveiby (2001) that knowledge-based strategy formulation starts with the competence of people. Therefore, more literature was reviewed focussing on abilities and skills required to perform strategic management tasks. Using the general strategic management process as a framework, a summary of abilities and skills required suggested in the reviewed literature for performing strategic managerial tasks is presented in Table II.

	Andrews (1971)	Rowe et al. (1986)	Mintzberg (1994a, b)	Thomson and Strickland (1996)	Heracleous (1998)	Liedtka (1998)	Graetz (2002)	Bonn (2005)
	Analytical Conceptual			Analytical Conceptual Visionary				
		Vision Creativity Flexibility Entrepren eurship	Visionary Creative		Creative		Creative	Vision Creativity
			Synthesis	Synthesizing skills	Synthetic		Synthetic	
					Divergent		Divergent	
				Knowledge				
						System perspective		System thinking
						Intent-focus Thinking on time Hypothesis-driven Acting in intelligent manner		
			Intuitive				Intuitive Innovative	

Table II.
Key elements of strategic thinking suggested in the literature

Research methodology

The study is designed to answer a research question, what constitutes strategic thinking that impacts strategies leading to successful business. During the process, the study also aims to answers three research sub-questions:

RQ1. How are business growth, strategic actions, and strategies related?

RQ2. How strategies are practically formulated and implemented?

RQ3. What do successful business leaders require to formulate and implement strategies effectively?

Method

The review of literature indicates a gap of knowledge in definition and attributes of strategic thinking in strategic management.

To gain new insights and fresh point of view about strategic thinking, the study applied the qualitative research approach (Kothari, 1996; Creswell, 1998, p. 17; Denzin and Lincoln, 2000, p. 3), using the grounded theory methodology originally developed by Glaser and Strauss (Jones and Noble, 2007). Grounded theory method was chosen because it provides a reflection of the reality, insights, and enhanced understanding of the actions under investigation (Strauss and Corbin, 1998). To follow the methodology, the study set aside theoretical ideas or notions about "strategic thinking" so that a new analytic concept or theory can emerge (Creswell, 1998, p. 59).

Of the two schools of thought, Glaserian and Straussian grounded theory, this study applies the Straussian method, using various sources of ideas and data (Strauss and Corbin, 1998) including in-depth interviews, observation, review of related literature, analysis of published documents, and prior experience and knowledge of the researchers. The study applied the four principles of grounded theory summarized by Jones and Noble (2007) and Gurd (2008, pp. 127-128): iterative data collection, theoretical sampling, constant comparison, and explicit coding and new concept building.

As "strategic thinking" is an important part of strategic management (Porter, 1987; Mintzberg, 1994a, b) which is defined as a set of decisions and actions that results in the formulation and the implementation of plans designed to achieve an organization's objectives (Pearce and Robinson, 2000), this grounded-theory based study adopts the strategic management process, illustrated in Figure 1, as a theoretical framework. Studies by Whittington (1996) and Jarzabkowski *et al.* (2007) suggest that detailed process is a way to achieve desired strategic outcomes. The study also applies the conceptual analysis and the pattern matching model (Trochim, 1989) for data analysis.

This study was designed to learn from business leaders of successful companies, in terms of revenue growth, linking business growth to strategic actions, strategic actions to strategies and to strategy formulation, and strategy formulation to strategic thinking. The study did not presume that the interviewed business leaders follow any particular school of thought.

Data collection
In-depth interviews were the primary source of data, supported by observations and related published information. Multiple techniques were used to collect and validate data to ensure reliability of the qualitative approach (Patton, 1999; Saldana, 2009).

Following the general principles of the grounded theory in using a purposive and theoritical sampling method (Strauss and Corbin, 1998; Charmaz, 2006), the interview respondents were business leaders of leading high-growth companies in their respective market segments. Qualified companies had a higher sales growth rate than the GDP or the average growth of their respective industries for three consecutive years, specifically the years 2006 through 2008. The 12 sample cases represent 11 different industries in Thailand (out of the 25 industries listed in the Thai government statistics of national industries): agriculture, auto-parts, bakery, beverage, books and publishing, entertainment, food, furniture, real estate, retail stores, and restaurants. To avoid bias caused by extraordinary growth in demand, high-technology-related industries were excluded. Having sample cases from different industries gives a better chance to find disconfirming cases in grounded theory research (Goulding, 2005). Each qualified interview respondent met two criteria: being the leader of a high-growth company, and actively taking part in growing the businesses.

Open-ended questions were used to allow the business leaders to openly share their views and thoughts (Rubin and Rubin, 1995), without mentioning the terms "strategic thinking" during the first part of the interviews. Data collection and analysis were done simultaneously (Charmaz, 2006; Strauss and Corbin, 1998).

To collect the empirical data, the first interview question, how the respondent had built his or her business, was intentionally broad to allow free flow of thoughts. Based on the answers to the first question, the follow-up questions were asked without any

pre-specified order: What were the important key factors behind the growth? What actions had driven the business in the past five years? What were the key business challenges in the past five years and how had they been addressed? What other activities had the respondent done in addition to managing the routine business? How were these strategies formulated and implemented at the company? The interview ended with the question: What would be an ideal successor's qualifications for carrying on sustainable growth of their company?

The answers were specific to each case. Despite the differences, the answers provide a number of "common" elements underlining the actions, and contains explanations of how business growth of companies link to the actions and the strategies behind those actions. The answers also reflect patterns of behaviors and the abilities and skills of the business leaders.

Coding and analysis

The study applied "conceptual analysis" which establishes the existence of frequency of concepts (such as words, themes, or characters) in a text, and analyzes text by coding the text into manageable contents categories (Sekaran and Bougie, 2010, pp. 385-386). Using conceptual analysis technique, the key statements, drawn from the descriptive interviewed data, were coded in words and short phrases that systematically assign a summative, essence-capturing, or evocative attribute of the data.

The data from the interviews went through three steps of coding (Charmaz, 2006): initial coding of statements (open coding), categorizing, and selective coding within a category after additional reviews of literature (Saldana, 2009, p. 3), and then analyzed to reveal common structures, patterns, and coherence.

The results of second step coding are categorized as: managing for growth, patterns of behaviors, and abilities and skills.

The study also utilizes the "pattern matching model" which links two patterns, the theoretical pattern and the observed or operational pattern (Trochim, 1989) in order to identify gaps in knowledge. Theoretical patterns refer to those found in the literature; the observed patterns are empirical patterns identified from the research data. The concept of pattern matching model was applied to code the abilities and skills of the business leaders.

Limitation of the research

Qualitative approach has a potential weakness in interpretations of statements. The weakness is reduced by constantly comparing the analyzed data to the literature. Recognizing the weakness of the in-depth interview data inquiry in terms of potential bias towards positive information, the study also uses information from published documents. The research designed to learn from business leaders of three-consecutive-year high-growth companies of different industries has resulted a small number of sample cases, 12 companies representing 11 industries, which somewhat limits the generalization of the finding.

Results

Towards the model development

The second step of coding revealed three dimensions of empirical data; managing for growth, patterns of behaviors, and abilities and skills.

Managing for growth. The empirical data from interviews were coded and structured to see how the business growth practically linked backed to the strategies,

the strategy formulation, and the strategic thinking, comparing to the general strategic management process. Without asking about the process how the business leaders manage their business, their actions fall into a pattern of strategic formulation and strategy implementation. "Information" is the most important thing in managing business. The business leaders utilized both competitive market information and resources information (existing resources and obtainable resources) in crafting business strategies. The choice depends on the circumstances. Personal values and personal qualities are found to have influences on strategic decision making, which strategies to choose among the options.

The strategies and strategic actions identified from the interviews were compared to the information from the company profiles and the published information of the corresponding companies. Conceptual analysis and relational analysis were used to systematically evaluate the content of different forms of information (Sekaran and Bougie, 2010, pp. 385-386).

The pattern of actions of business leaders and how the business growth related to strategic action, strategies, and strategic thinking is presented in Figure 2.

Patterns of behavior. Though having different management styles and approaches, different motivations, objectives, and constraints (pattern coding, Saldana, 2009), this study found common patterns of behavior related to developing business growth. The list of patterns of behaviors derived from the codes (phrases) obtained from the data is presented below:

(1) Constant learning:

- attending seminars;
- commissioning market research and consumer research;
- discussing issues and new information with management team;
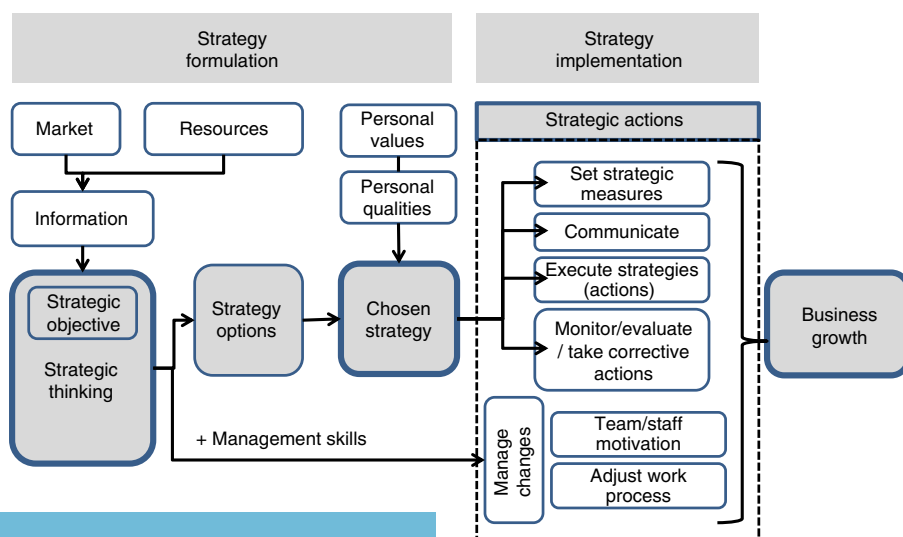- having competitive information report system;
- hiring experts;

Figure 2.
The pattern of actions of studied business leaders

- learning from past experiences or mistakes of others;
- meeting with people in the same and related industries;
- reading;
- seeking advice from experienced individuals;
- searching for new knowledge; and
- visiting exhibitions.

(2) Analyzing information:
- asking strategic questions;
- examining causes of changes;
- identifying additional information to obtain; and
- interpreting the industry market research.

(3) Synthesizing information:
- combining information from different sources;
- exploring opportunities identified from various information;
- finding a new solution to a problem from combining various suggestions;
- forming new ideas from a combination of ideas proposed by subordinates; and
- identifying new information derived from obtained information.

(4) Networking:
- being active in social clubs;
- having casual meetings with suppliers and business partners;
- joining business associations or clubs; and
- participating important national events.

(5) Assessing opportunities:
- being responsive to new information;
- conceptualize potential opportunities;
- getting information for new potential businesses; and
- paying attention to macroeconomic information.

(6) Generating ideas:
- creating new product ideas;
- creating new ideas for obtaining more revenues; and
- suggesting new solutions to day-to-day business issues.

(7) Planning for growth:
- identifying business constraints;
- identifying required resources;

- identifying options of how to go about achieving the goals;
- setting long-term objectives based on desired outcome and potential resources;
- setting goals, long-term, short-term; and
- visioning long-term potential of the business.

(8) Finding solutions to problems:
- identifying problems;
- identifying possible causes of problems; and
- identifying solutions.

(9) Making decisions.

(10) Taking timely actions:
- setting timeframe for actions; and
- valuing a sense of urgency.

(11) Directing implementation and motivating staff:
- communicate;
- emphasizing on objectives;
- giving feedbacks;
- having an open-communication channel with staff;
- having a human resource development plan; and
- having an performance incentive scheme.

(12) Following-up projects (being persistent):
- applying a KPI (key performance indictor) system;
- having measurements for important projects;
- having a monitoring system; and
- having a performance evaluation system.

Abilities and skills. In relation to the "managing for growth" and the "pattern of behaviors," the study identified a list of abilities and skills (codes) used in transforming information into strategies and actions. Using "pattern matching model" (Trochim, 1989), the derived codes were compared to those mentioned in various literature (Table II). The study found that most literature generally mentions about abilities and skills without specify how the abilities and skills might be used. The study has structured the abilities and skills using the general strategic management process as a framework to see which abilities are used by business leaders at what stage of strategic management.

The 25 codes representing abilities and skills required for performing different steps of strategic management are summarized in Table III.

Table III.
Summary of abilities and skills performed by the interviewed business leaders

Strategic managerial tasks[a]	Analytical thinking ability	Creativity, creative thinking ability	Conceptual thinking ability	Communication skill	Decision making skill	Entrepreneurial thinking	Forefront thinking	Imagination	Inspiration	Intuition	Holistic thinking
Vision formation	×	×	×				×	×	×	×	
Information analysis											
Identifying important information and understanding the business environment	×		×								
Analysis (written or unwritten) of strengths, weaknesses, opportunities and threats to the business	×		×		×	×		×	×		×
Identifying, recognizing, developing business opportunities	×	×	×			×	×			×	
Strategy formulation											
Translating the vision into measurable strategic objectives	×	×	×				×	×			×
Crafting strategic options	×	×	×				×	×		×	×
Selecting and deciding on the strategy	×	×			×	×	×	×			×
Translating strategy into operation direction	×	×	×		×	×					×
Formulating performance targets and measurement criteria	×	×	×								×
Strategy implementation											
Communicating the strategy, aiming for strategy adoption	×	×	×		×	×		×	×	×	×
Leading development of action plans and taking actions	×	×	×	×							
Evaluating performance	×	×	×		×	×		×	×	×	×
Initiating new developments or corrective actions during implementation	×	×	×		×	×		×	×		×

Strategic managerial tasks[a]

	Knowledge of business, context	Knowledge management	Learning ability, from information	Learning from experiences	Leadership skill	Logical thinking	Persuasion skill	Problem-solving skill	Objectivity, being objective, focus	Positive thinking	Synthesizing ability	Systematic, systematic thinking	Technical skills	Visionary, visionary thinking
Vision formation	×		×		×				×	×	×			×
Information analysis														
Identifying important information and understanding the business environment	×		×	×		×				×	×		×	
Analysis (written or unwritten) of strengths, weaknesses, opportunities and threats to the business	×		×								×		×	×
Identifying, recognizing, developing business opportunities			×			×			×	×	×	×	×	×
Strategy formulation														
Translating the vision into measurable strategic objectives		×	×			×			×		×	×		×
Crafting strategic options		×		×		×			×		×	×		×
Selecting and deciding on the strategy					×	×					×		×	
Translating strategy into operation direction	×			×	×				×	×		×		
Formulating performance targets and measurement criteria			×											
Strategy implementation														
Communicating the strategy, aiming for strategy adoption					×		×							
Leading development of action plans and taking actions			×	×	×	×	×	×	×	×	×			×
Evaluating performance	×	×	×	×	×	×	×		×	×	×	×		
Initiating new developments or corrective actions during implementation	×	×		×	×	×		×	×	×	×		×	×

Notes: Shaded column are the selected elements related to thinking. [a]General strategic management process (Thomson and Strickland, 1996; Pearce and Robinson, 2000). Sub-processes were derived from the interviews. ×, abilities and/or skills

Table III.

Strategic thinking competency model
The third step of coding, selective coding, revealed that within the 25 abilities and skills practically applied in strategic management process, there are elements related to "thinking," separated from behavior, traits, and other qualifications of individuals. Embedded in the list of abilities and skills are the characteristics of strategic thinking: conceptual thinking ability, visionary thinking, creativity, analytical thinking ability, learning ability, synthesizing ability, and objectivity, which enable business leaders to strategically formulate vision, analyze data, formulate strategies, and implement strategies. The weight of different elements differs from person to person. The seven characteristics were compared to the literature (Table I) to see similarities and differences. Some of the attributes mentioned by different authors at different times in the literature were conceptual, visionary, analytical, creativity, and synthesizing. The closest ones are the proposal of Heracleous (1998) and Graetz (2002) which describe "strategic thinking" as being creative, synthetic, and divergent, and the study by Bonn (2001, 2005) which proposes that strategic thinking consists of system thinking, creativity, and vision.

The emerged set of abilities and skills related to thinking is termed "strategic thinking competency."

The model of strategic thinking competency which relates to strategy formulation, strategic actions, leading to business performance is illustrated in Figure 3.

"Competency" is defined as the underlying attributes of a person such as his or her knowledge, skills, or abilities (Boyatzis, 1982). Hamel and Prahalad (1994, p. 202) define competence as a "bundle of skills and technologies" rather than a single skill.

Conclusions and discussions
The answers to the research questions
As a result of the study, "strategic thinking" is defined as a set of competency that impacts strategy formulation and strategic actions leading to business performance, of which characteristics include: conceptual thinking ability, visionary thinking, creativity, analytical thinking ability, learning ability, synthesizing ability, and objectivity:

RQ1. How are business growth, strategic action, and strategies related?

This grounded-theory-based empirical study, using inductive approach, found close relationships among business growth, strategic actions, strategies, and competencies of business leaders. The study indicates that continued business growth is the outcome
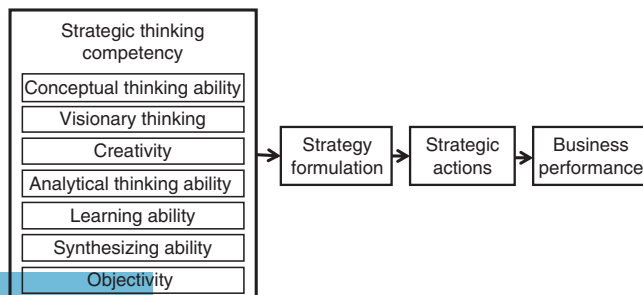

Figure 3.
Model of strategic thinking competency

of a series of strategic actions. Strategies and strategic actions are the outputs of strategic thinking.

The relationship of the business performance to strategic actions, strategies, and strategic thinking as derived from the answers to the interview questions and actions of business leaders is presented in Figure 2.

Many implemented strategic actions are based on a few key bold strategies. Information is the most mentioned as the important inputs for formulating strategies and in implementing strategies. Strategic thinking competency contributes to the quality of the strategies and strategic directions. The strategic actions taken by the successful business leaders were implemented with business objectives in mind. Some actions follow the pre-set strategies; some were strategically planned considering objectives, competition, culture, and accessible resources; and some were spontaneous reactions based on business opportunities, and the context of competition:

RQ2. How strategies are practically formulated and implemented?

To develop strategies, the interviewed business leaders put heavy emphasis on sourcing and utilizing information. From a pool of information, choices of different opportunities were conceptualized and identified, written, and not written. Some were discussed among the management team. Strategic decisions were based on information from different sources and influenced by the corporate structure, capability, culture, as well as the business leader's values. More aggressive business leaders put more emphasis on future possibilities.

Despite being based on different motivations, objectives, and constraints of different businesses, the study found common patterns of behaviors, of the studied business leaders, which contribute to formulating and implementing strategies (pattern coding, Saldana, 2009): constant learning, analyzing information, synthesizing information, networking, assessing opportunities, generating ideas, planning for growth, finding solutions to problems, making decisions, taking timely actions, directing and motivating staff, and following-up projects. Different companies have different ways of doing all these things.

During data collection and analysis, the importance of the knowledge, abilities and skills, and leadership traits of individuals surfaced. Using the general strategic management process as a framework, 25 abilities and skills have been identified and listed in Table III.

Due a high volatility of the business environment, business leaders emphasized that staying focussed on the goal and corporate strategy for a certain period is essential, while operational strategies and strategic actions may change according to the market circumstances, competition, and resources available. The findings indicate that each business leader applies both approaches of corporate strategy: the market-based view (Porter, 1985) and the resource-base view (Barney, 1991). This observation is in line with the study of Gioia and Chittipeddi (1991) which points out that top management plays an important role in the initiation of strategy changes.

The empirical data revealed that at the corporate level, each company applied few bold key strategies during a certain period of time. Each strategy was transformed into many strategic actions, based on specific operational objectives. Different key strategies were applied at different times based on the stages of business development and market situation. An interesting finding is that all companies saw "quality" of their products and services as a priority for business sustainability. With these values, some

companies strategically focussed on quality assurance systems (e.g. auto parts); others focussed on acquiring raw materials and developing processes; and some on research and development work. The findings are in line with the conclusion of a longitudinal case study by McAdam and Bailie (2002) whichs states that there is a close relationship between strategy and performance. Furthermore, the study gives support to the finding by French (2009a, b) that better strategies can be generated if answers to quality questions are found.

According to the findings strategy formulation as well as strategy implementation was mainly done by the business leaders themselves. The assessment of a chosen strategy was started as soon as the implementation of the new strategy started. Speed is an important factor of decision making which was emphasized by most business leaders. This supports Eisenhardt's observation about strategic decision making that high-growth firms have fast, high quality, and widely supported decision-making processes (Eisenhardt, 1999, p. 72).

The study revealed that successful business leaders did not leave strategy implementation to their management teams. The leaders personally guided the implementation either directly or through their management teams. This supports the study by Campbell *et al.* (2010) that to have effective strategy implementation, top management needs to be involved in executing new strategies. In companies with formal quality assurance systems, the study found that the performance evaluation was done systematically:

RQ3. What do successful business leaders require to formulate and implement strategies effectively?

The way the leaders answered interview questions demonstrates their systematic thinking, a habit of constantly reassessing objectives, and continuously learning from reflecting on their past decisions and on the strategic rationales behind those decisions. The study has identified seven abilities and skills related to thinking applied in developing and implementing strategies: conceptual thinking ability, visionary thinking, creativity, analytical thinking ability, learning ability, synthesizing ability, and objectivity. This set of abilities and skilled is term strategic thinking competency.

In addition, the important characteristics of desired business successors noted from the interviews include: being good hearted, caring about the society; ability to adapt to change; ability to develop strategic options for a specific opportunity; ability to lead and coach others; having knowledge of modern management tools which is especially important when the firm grows larger and more complicated; paying attention to details; having forefront thinking and mind-set; having good interpersonal skills; having self-awareness and self-confidence; and being self-motivated.

The study reveals that the same competencies used for strategy formulation are also used for identifying and making strategic actions during implementation. Other key success factors of building business growth shared by the interviewed business leaders were: opportunities, teamwork of managers and staff, network, knowledge of the business context, experiences, technology, being socially responsible. The business leaders share a pattern of timely analyzing and synthesizing abilities. The process of analyzing and synthesizing information, and setting operational strategies happens constantly. The study complements leadership qualities proposed by Forgie and DeRosa (2010): action orientation, building teams, and critical and analytical thinking.

Decision-making styles of the interviewed business leaders differ. The study found that important strategic decisions for the future are made mainly by the business leaders themselves. Other managerial problem-solving decisions are made by or with the involvement of the management team.

Without subscribing to any school of thought, this study found that an overall business strategy is created from synthesized information based on an objective and a set of constraints in market context and resources. The key strategies developed at different times may change according to the market circumstances which include the competitive situation as well as according to the changes of existing and future resources. The results of this empirical study support the original strategy formulation model proposed by Andrews (1980, in Mintzberg *et al.*, 1998a, b, p. 54) that strategy formulation includes identification of opportunities and risks, determination of the company's resources, personal values and aspirations of senior management, and acknowledgement of non-economic responsibility of the company to the society. The study also confirms that strategy formulation happens at different levels of decision making (Pettigrew, 1977), and that the operational strategy is incremental (Quinn, 1980a, b). How the business leaders process information depends on their background knowledge, styles, values, and the combination of the individual's abilities and skills related to thinking.

Beliefs, philosophy, values, and principles were often mentioned by the business leaders during the interview. Some business leaders mentioned using intuition in identifying some business opportunities or making some operation decisions. Literature reviews on business process management and culture by Brocke and Sinnl (2011) found that "culture" is an under-researched topic in business management. An empirical study by Waal *et al.* (2012) found that personal values and belief, of an individual, which are part of the personal qualities, play important roles in effectiveness of managers, and that personal values of the business leaders influences their decision making and in the directions of the strategies that they pursued.

Some business leaders indicated that high growth was not the goal *per se*, but a result of pursuing the vision, possibilities, or the opportunities. These qualities conform to the key characteristics of entrepreneurship in terms of recognition, discovery, and creation of opportunities (Sarasvathy, 2002; Mitchelmore and Rowley, 2009; Kraus *et al.*, 2011).

Contributions and recommendations
A novelty this study brings to the field of strategic management is the empirical-based model of "strategic thinking competency" with seven characteristics, considering strategic thinking from individual competency point of view, for better strategy and better business performance. The set of seven characteristics of strategic thinking is a new insight not found in the existing literature.

This paper offers four contributions to the academic world and the societies. First, the study introduces a new way of looking at strategic thinking in terms of competency of business leader that impact business performance. This may lead to new studies of other aspects of abilities and skills that impact business performance. Second, the result of the study provides a framework for developing better strategic thinking in people or increase a number of strategic thinkers. More strategic thinkers could allow organizations to better respond to the challenges of the changing business environment (Tavakoli and Lawton, 2005). Third, other findings, based on the grounded-theory empirical data, complement many of the previous studies which

emphasize the importance, and the impacts of strategic thinking. Better strategic thinking could contribute to improving efficiency and effectiveness, not only in managing business but also in managing any kind of projects. Fourth, the study can be a base for further studies about strategic thinking or other competency required for effective strategic management.

The new grounded-theory-based model of strategic thinking competency can be confirmed for better generalization by a quantitative research. Further study on the impact of personal values on the strategic decisions and the direction of strategies would be very useful.

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