CASE STUDY

Strategic thinking: intelligent opportunism and emergent strategy – the case of Strategic Engineering Services

Steven Pattinson

Steven Pattinson is Senior Lecturer in Business & Management and Business Placement Coordinator at Teesside University, Middlesbrough, Tees Valley TS1 3BA, UK. E-mail: s.pattinson@tees.ac.uk.

The Case Study section of the International Journal of Entrepreneurship and Innovation serves two purposes. First, the case studies presented are concerned with problematical issues that are pertinent to students of entrepreneurship. Thus they constitute appropriate teaching and learning vehicles on a variety of postgraduate and undergraduate programmes. Each case study is accompanied by a set of guidelines for the use of tutors. Second, it is envisaged that those engaged in entrepreneurial activities will find the cases both interesting and useful.

Abstract: This case study focuses on strategic thinking and opportunistic approaches to business growth and diversification. It begins by examining the recent purchase of 'Quickcover', a remote-controlled sports pitch covering system, by engineering company Strategic Engineering Services and the company's current dilemma – whether to continue to develop this type of product, or sell it and concentrate on its existing engineering services business. In recent years, Strategic Engineering Services has moved away from traditional heavy engineering and diversified into related areas such as engineering services, oil and gas industry recruitment, plant and equipment hire, instrument calibration and project management. The case considers the relationship between strategic thinking and entrepreneurial approaches to opportunity recognition, exploring the concept of intelligent opportunism as an approach that enables entrepreneurs to develop emergent strategies and take advantage of new opportunities. It explores these concepts in the context of the current dilemma of Strategic Engineering Services.

Keywords: intelligent opportunism; emergent strategy; strategic thinking; effectuation

Learning outcomes: The case (a) gives students the opportunity to gain insights into how entrepreneurs identify, evaluate and pursue new opportunities; (b) enables students to consider the validity of the concept of 'intelligent opportunism'; (c) provides an opportunity for students to examine how the concept of 'intelligent opportunism' fits with the emergent view of strategy often adopted by entrepreneurs; and (d) allows students to engage in a broader theoretical discussion about entrepreneurial approaches to strategy development.

Strategy has had a variety of definitions applied to it. Alfred Chandler (1963, p 13), for example, considers strategy to be: "... the determination of the long-run goals and objectives of an enterprise and the adoption of courses of action and the allocation of resource necessary for carrying out these goals'. On the other hand, Michael Porter (1996, p 64) suggests that 'Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value.' Firms must possess the necessary capabilities to enable them to reconfigure, renew and redeploy resources and capabilities constantly in order to capture changing opportunities more effectively (Foss et al, 2011; Lau et al, 2004). Competitive strategy, therefore, explores how firms operate to improve their performance (Lechner and Gudmundsson, 2014). For most people in business, 'strategy' is viewed as a way to explain the things they do (Thompson et al, 2014); it is a plan, a conscious decision or an intended course of action that is premeditated and deliberate (Graetz, 2002).

Strategic thinking, intelligent opportunism and emergent strategy

The purpose of strategic thinking, it has been suggested, is to: 'discover novel, imaginative strategies which can re-write the rules of the competitive game; and to envision potential futures significantly different from the present' (Heracleous, 1998, p 485). Strategic thinking is an essential prerequisite to firms' survival (Beaver and Ross, 2000). More recently, strategic thinking has been related to the innovative aspects of a firm's strategic planning (Harrison and St John, 2013). However, Mintzberg and Waters (1985) recognize that not all strategy is consciously planned, referring to 'emergent strategy' that is often developed intuitively by entrepreneurs rather than as the result of rational planning (Hill et al,

The notion of emergent strategy is closely linked to the theory of 'effectuation' (Sarasvathy, 2001): that is, the notion that entrepreneurship is a way of thinking, reasoning and acting that focuses on the identification and exploita-

tion of business opportunities from a broad general perspective, which Sarasvathy (2004) describes as the 'essential agent' of entrepreneurship. Entrepreneurship is, therefore, associated with opportunity recognition and has been defined as the: 'examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited' (Shane and Venkataraman, 2000, p 218), and the ability to recognize opportunities is widely viewed as a key step in the entrepreneurial process (Tang and Khan, 2007). The purpose of strategic thinking, on the other hand, is to clarify the future, allocate and manage resources and manage change (Thompson et al, 2014). However, to create the most value, entrepreneurial firms also need to act strategically, and this calls for an integration of both entrepreneurial and strategic thinking (Hitt et al, 2001), as Zahra and Nambisan (2012, p 219) explain: 'Strategic thinking and the entrepreneurial activities ... influence one another in a cycle that perpetuates and even sparks innovation'. The question is, how can these two concepts be successfully combined?

The concept of 'intelligent opportunism' refers to the idea that, although strategic thinking is inherently concerned with shaping and reshaping strategic intent, there must be room for flexibility (Hamel and Prahalad, 1989), thus allowing entrepreneurs to consider new opportunities. Intelligent opportunism involves entrepreneurs being open to new experiences that allow them to take advantage of emergent strategies that are, arguably, more relevant in a rapidly changing business environment and can be considered a form of 'opportunistic' strategy (Liedtka, 1998). Intelligent opportunism therefore acts as a locus for combining opportunity recognition and emergent strategies, as Liedtka (1998, p 123) explains: 'within this [type of] intent-driven focus, there must be room for intelligent opportunism that not only furthers intended strategy but that also leave open the possibility of new strategies emerging'. Intelligent opportunism is about adopting a flexible approach to strategy in order to take advantage of emerging strategies and new opportunities and, by being 'intelligently opportunistic', entrepreneurial

leaders can influence strategic decision making (Haycock, 2012).

All information gathered for the case study should be considered to have been disclosed in a relationship of trust, and participants have the right to expect that it will not be divulged without their permission. At the request of the organization, and for commercial reasons, all confidential data pertaining to the organizations and its products have been presented in an anonymous way, observing ethical standards.

Strategic Engineering Services

Robert Stewart, the MD of Strategic Engineering Services Ltd (SES), was considering whether he should concentrate on strengthening the engineering services part of the business, where the company had a strong reputation in the market, or whether he should invest more time and money in the firm's latest product. Robert had purchased a new product, 'Quickcover', because he saw an opportunity to improve on the original design of the product as well as to diversify the company's existing portfolio by expanding its range of products and services. As he explains:

'If I see an interesting business I will consider buying it if it complements our existing portfolio ... by providing services and products this prevents us putting all our eggs in one basket, so to speak.'

In Robert's view, diversification was essential to the long-term financial success of SES, but his fellow directors would need convincing.

Company background

Formed in 1972, the SES Group is a privately owned group of companies providing engineering products and services throughout Europe, as well as in the Middle East and Far East. The original firm, Strategic Engineering Services Ltd (SES), was founded by Eric Stewart, who had trained as a machinist making steel components such as nuts, bolts and steel casings. Eric used a small bank loan to buy his own lathe and started making these components, which

were supplied to many firms in various industries in the north of England, including the steel and petrochemical industries. The business was very successful and the company quickly grew. By the early 1980s, SES employed around 60 people. Due to the changing nature of the heavy engineering sector in the late 1990s, the SES Group changed the shape of its business. This included divesting itself of most of its activities in heavy fabrication, heavy machining and manufacture of large water and sewage pumping systems, to allow a focused commitment to the company's technical pedigree and the emerging renewables, oil and gas and marine engineering sectors.

During this time, the company had expanded into related areas such as welding, fabrication and engineering maintenance. Again, these new activities were very successful, and a separate company, Strategic Site Maintenance Ltd (SSM), was established in 1992 to deal with the site services side of the business. SSM is an engineering and contracting services company providing a wide range of engineering services to customers in the UK and overseas. This includes fabrication and construction projects to oil and gas, marine and petrochemical industries. SSM also provides recruitment services specifically designed to serve a wide range of specialist trades, technical and engineering personnel working in all sectors of industry.

The success of the site services business meant a move to larger premises with additional space, better undercover facilities and the cranage required for heavy lifting and carrying out large-scale maintenance contracts. A large (10-acre) site that used to be an old steel foundry provided an ideal location for the growing business. This site remained the home of both SES and SSM up until the mid-1990s. At this time, the traditional machining market was starting to dry up as more UK firms began outsourcing this sort of work to companies in Eastern Europe and the Far East. SES recognized the need to branch out into new areas of business and had already started to diversify into new and related areas of engineering, such as plant and equipment hire, instrument calibration and project management.

Diversification

By the mid-1990s, SES was established as a holding company for a number of subsidiary trading companies that were set up to run each of the company's growing and increasingly diverse business interests. At the same time, the strategic decision (Hendry, 2000) was made to sell the original machining part of the business, which was becoming unprofitable, and also to sell the premises, which were now too large for its existing needs. The company moved into brand new premises on a local business park in rural Northumbria, where it was now able to concentrate on its portfolios of businesses. SES was now represented by three distinct subsidiary companies, each run as separate businesses by Eric's three

- Strategic Site Maintenance Ltd (SSM) - established in 1992 and run by Simon Stewart, SSM is a specialist engineering, construction and technical recruitment business. The company provides recruitment services to a broad range of sectors including nuclear and power generation, construction, the chemical industry and the onshore/offshore oil and gas industries both within the UK and internationally. It also provides project management services for fabrication and construction projects in the oil and gas, marine and petrochemical industries.
- MobileCAL Ltd established in 1992 and run by David Stewart, MobileCAL offers mobile calibration and testing of equipment. The business provides a mobile service covering the whole of the UK. Its services include calibration, load testing, portable appliance testing (PAT), exhaust and dust extraction, air quality testing and certification.
- TestCAL Ltd established in 1997 and run by Robert Stewart, TestCAL is a test equipment specialist providing a range of calibration services including equipment hire, on-site calibration laboratories and sales of test and measurement equipment. It also provides hire services throughout the UK.

A new opportunity

More recently, SES has acquired a new company as part of its portfolio, Quickcover Ltd, which manufactures a unique remote-controlled sports pitch covering system. This system is designed to fit any size of outdoor sporting venue, providing protection from the elements. A motorized roller system is operated by a simple remote control, which at the press of a button travels across the field, automatically deploying a weatherproof cover in less than 10 minutes. SES was initially contracted to fabricate the roller system on behalf of Quickcover. However, Robert Stewart, the MD of TestCal, saw the product as potentially very lucrative and bought the company. The firm now manufactures, installs and maintains the system under the brand name Quickcover. The product is used by a range of sporting venues including football, rugby, cricket, athletics, American football, baseball, tennis and hockey facilities. More recently, SES has also developed a variation of the product, 'Stadiumcover', for use at equestrian and other similar outdoor arenas.

Summary

The decision Robert and his fellow directors now face is whether they should continue to pursue their current approach and invest in developing a strategy for manufacturing and selling both the Quickcover and Stadiumcover products, or sell this part of the business and focus on their already well established and successful engineering services business. Robert's ability to influence this decision may hinge on his ability to persuade his fellow directors to accept his plan. This case is helpful because it offers a unique insight into how entrepreneurs develop emergent strategies to take advantage of new opportunities. It also advances our theoretical understanding of the relationship between strategic thinking and entrepreneurial approaches to opportunity recognition. The case highlights the concept of how intelligent opportunism can be used to explain the ways in which entrepreneurs develop emergent strategies in order to take advantage of new opportunities.

Questions

- (1) To what extent can Robert's decision to purchase Quickcover, and the subsequent introduction of Stadiumcover, be viewed as intelligent opportunism?
- (2) How does Robert's proposed approach to diversification fit with the notion of emergent strategy?
- (3) What risks might this new opportunity present for the long-term strategic success of Strategic Engineering Services?
- (4) In addition to identifying new opportunities, how else might intelligent opportunism support strategic and/or entrepreneurial thinking?

Acknowledgments

This case was made possible through the generous cooperation of Strategic Engineering Services Ltd. The names of the company and all individuals mentioned in the case have been changed. The organization has exercised its right to confidentiality in order to protect its market position and maintain its competitive advantage, particularly in relation to its new product development strategy. The case is intended as a basis for class discussion rather than to illustrate either effective or ineffective handling of management situations. The author wishes to acknowledge the financial support of Enterprise Educators UK through its Enterprise Education and Research Project Fund. He also acknowledges Dr Jonathan M. Scott for his comments on an initial draft of this case.

References

- Beaver, G., and Ross, C. (2000), 'Enterprise in recession: the role and context of strategy', *International Journal of Entrepreneurship and Innovation*, Vol 1, No 1, pp 23–31.
- Chandler, A.D. (1963), Strategy and Structure: Chapters in the History of American Enterprise, MIT Press, Boston, MA.
- Foss, L., lakovleva, T., Kickul, J., Oftedal, E.M., and Solheim, A. (2011), 'Taking innovations to market: the role of strategic choice and the evolution of dynamic capabilities', *International Journal of Entrepreneurship and Innovation*, Vol 12, No 2, pp 105–116.

- Graetz, F. (2002), 'Strategic thinking versus strategic planning: towards understanding the complementarities', *Management Decision*, Vol 40, No 5, pp 456–462
- Hamel, G., and Prahalad, C.K. (1989), 'Strategic intent', *Harvard Business Review*, Vol 70, No 3, pp 63–78.
- Harrison, J.S., and St John, C.H. (2013), Foundations in Strategic Management, Cengage Learning, Boston, MA.
- Haycock, K. (2012), Strategic thinking and leadership', *Library Leadership and Management*, Vol 26, Nos 3–4, pp 1–23
- Hendry, J. (2000), 'Strategic decision making, discourse, and strategy as social practice', *Journal of Management Studies*, Vol 37, No 2, pp 955–978.
- Heracleous, L. (1998), 'Strategic thinking or strategic planning?' Long Range Planning, Vol 31, No 3, pp 481–487.
- Hill, C., Jones, G., and Schilling, M. (2014), *Strategic Management: An Integrated Approach*, Cengage Learning, Boston, MA.
- Hitt, M.A., Ireland, R.D., Camp, S.M., and Sexton, D.L. (2001), 'Strategic entrepre-

- neurship: entrepreneurial strategies for wealth creation', *Strategic Management Journal*, Vol 22, No 1, pp 479–491.
- Lau, T., Man, T.W.Y., and Chow, I. (2004), 'Organizational capabilities and performance of SMEs in dynamic and stable environments', *International Journal of Entrepreneurship and Innovation*, Vol 5, No 4, pp 221–229.
- Lechner, C., and Gudmundsson, S.V. (2014), 'Entrepreneurial orientation, firm strategy and small firm performance', *International Small Business Journal*, Vol 32, No 1, pp 36–60.
- Liedtka, J.M. (1998), Strategic thinking: can it be taught?' Long Range Planning, Vol 31, No 1, pp 120–129.
- Mintzberg, H., and Waters, J. (1985), 'Of strategies deliberate and emergent', in De Wit, B., and Meyer, R., eds, Strategy: Process, Content, Context: An International Perspective, West Publishing, St Paul, MN, pp 12–21.
- Porter, M.E. (1996), 'What is strategy?'

 Harvard Business Review, Vol 74, No 6, pp 61–78.
- Sarasvathy, S.D. (2001), 'Causation and effectuation: toward a theoretical shift

- from economic inevitability to entrepreneurial contingency', *Academy of Management Review*, Vol 26, No 2, pp 243–263.
- Sarasvathy, S.D. (2004), 'Making it happen: beyond theories of the firm to theories of firm design', *Entrepreneurship Theory and Practice*, Vol 28, No 6, pp 519–531.
- Shane, S., and Venkataraman, S. (2000), 'The promise of entrepreneurship as a field of research', *Academy of Management Review*, Vol 25, No 1, pp 217–226.
- Tang, J., and Khan, S.A. (2007), 'Dynamic interactions between alertness and systematic search: a yin and yang perspective on opportunity recognition and innovation', *International Journal of Entrepreneurship and Innovation*, Vol 8, No 3, pp 175–187.
- Thompson, J.L., Scott, J.M., and Martin, F. (2014), Strategic Management:

 Awareness and Change, 7 ed,
 Cengage Learning, Boston, MA.
- Zahra, S.A., and Nambisan, S. (2012), 'Entrepreneurship and strategic thinking in business ecosystems', *Business Horizons*, Vol 55, No 1, pp 219–229.

TEACHING NOTE¹

1. Summary of the case

Strategic Engineering Services Ltd is a holding company for a number of subsidiary trading companies engaged in a range of commercial activities in the engineering sector, including equipment hire, recruitment, and calibration and testing of equipment and project management. This case study focuses on strategic thinking and the opportunistic approach to business growth. In recent years, the company has moved away from heavy engineering into engineering services. However, it recently purchased 'Quickcover', a unique remote-controlled sports pitch covering system, and is now considering whether to continue to develop this product or sell it and concentrate on its existing engineering services business.

2. Teaching objectives and target audience

The key issue in this case study is whether the company should continue to develop the 'Quickcover' product or sell it and concentrate on its core engineering services business. This case study will enable students to consider the nature of intelligent opportunism and examine emergent views of strategy that are often adopted by entrepreneurs. It is aimed at both undergraduate and postgraduate students studying strategy and related modules in the area of enterprise, entrepreneurship and innovation. The case gives students the opportunity to gain insights into how entrepreneurs identify, evaluate and pursue new opportunities. There are four learning objectives:

- (a) The case study gives students the opportunity to gain insights into how entrepreneurs identify, evaluate and pursue new opportunities.
- (b) The case enables students to consider the validity of the concept of 'intelligent opportunism'.
- (c) The case provides an opportunity for students to examine how the concept of 'intelligent opportunism' fits with the emergent view of strategy often adopted by entrepreneurs.

(d) The case allows students to engage in a broader theoretical discussion about entrepreneurial approaches to strategy development.

3. Teaching approach and strategy

This case study can be used as the starting point for students to discuss different approaches to opportunity recognition and strategy development. It allows the application of class-based theory to a real-life situation and encourages active participation in the learning process. The main theoretical points to highlight when using the case relate to the concept of strategic thinking. The case gives students the opportunity to gain insights into how entrepreneurs identify, evaluate and pursue new opportunities – that is, the concept of effectuation. It links effectuation to another theory, 'intelligent opportunism', and allows students to consider the validity of these concepts in the decision-making processes of entrepreneurs. It provides an opportunity for students to compare and contrast these related concepts and how they fit with the concept of emergent strategy often adopted by entrepreneurs.

Wherever possible, the classroom should be arranged with desks in a semicircle or similar layout, which allows students to face each other and work together in small groups. This will help facilitate a direct exchange of views between them. Teaching this case begins by asking students to read and think about it – either at the start of or prior to the class - depending on the length of the seminar or tutorial. A 5-10-minute introduction by the lecturer might then be useful before beginning any discussion. The introduction should explain Robert's predicament: that he needs to persuade his fellow directors to continue with the 'Quickcover' product that he recently purchased. The lecturer might want to present the potential alternatives for the new product and the challenges associated with each option – selling the product or continuing its development. The goal of the case is not to select the correct choice for SES, but rather to understand the challenges inherent in strategic decision making and how they can mitigate any associated risks.

Once the introduction is complete, the lecturer might want to break the class up into teams of three to five students, depending on numbers. The teams should discuss and summarize their answers to each of the questions presented in the case study and choose one representative to present a summary of the team's answers to the class. The lecturer should work to move the discussion past a listing of challenges to an identification of the potential outcomes of the available choices. To conclude the session, the lecturer might consider asking students to report back – either in small groups (4–5 students) or individually – to summarize what they consider to be the main learning outcomes of the session. Alternatively, the lecturer could ask them to take a few minutes to summarize their own thoughts about the main points raised. It is also important to ask students to evaluate the usefulness of the case in their studies to help them to evaluate their own learning, as well as to help the lecturer evaluate the usefulness of the case and make amendments where necessary.

4. Analysis

There are no right or wrong answers; rather, the case study provides a spring-board for students to discuss the main issues raised. However, students are challenged to think about a real-life scenario in which the process of opportunity recognition by the main protagonist (Robert Stewart) can be analysed in detail. More specifically, students should consider the following points in their answers to the questions posed.

To what extent can Robert's decision to purchase Quickcover, and the subsequent introduction of Stadiumcover, be viewed as intelligent opportunism? Students should recognize that intelligent opportunism is about adopting a flexible approach to decision making in order to develop and take advantage of emerging strategies and new opportunities as they arise. Robert has clearly adopted a flexible approach to his strategy development to take advantage of a new opportunity. By being 'intelligently opportunistic', he is open to new experiences that allow him to take advantage of potential business opportunities and develop emergent strategies

that are important in a rapidly changing business environment. Robert's behaviour can be considered a form of opportunistic strategy development and is clearly an example of intelligent opportunism.

How does Robert's proposed approach to diversification fit with the notion of emergent strategy? Students should be able to distinguish between the traditional view of strategy as a consciously planned activity and the emergent view of strategy as an approach that is often developed intuitively by entrepreneurs, rather than as the result of rational planning. They should be able to link emergent strategy with the concept of effectuation: that is, that entrepreneurship is a way of thinking, reasoning and acting that focuses on the identification and exploitation of business opportunities, and that this is an essential ingredient of successful entrepreneurship. Students should be able to identify that Robert's approach to diversification is a good example of an entrepreneur adopting an emergent approach to strategy development.

What risks might this new opportunity present for the long-term strategic success of Strategic Engineering Services? The company has a record of diversification in its traditional area of expertise, engineering, but Quickcover and its associated product represent a move into a new and unknown market. The level of risk presented by the purchase of these new products is not explicitly discussed in the case study. However, students should be able to deduce that the case study implies a potential conflict between Robert and his fellow directors. Robert clearly views diversification as essential to the longterm success of the company. However, the views of the rest of the board members are not known. Robert's ability to influence the rest of the board will play a key role in the success, or otherwise, of his plan.

In addition to identifying new opportunities, how else might intelligent opportunism support strategic and/or entrepreneurial thinking? As well as helping to identify new opportunities, students should recognize that the concept of intelligent opportunism also indicates that entrepreneurs need to 'dig deep' into their organizations in order to

hear from many individuals and explore multiple perspectives. By adopting this approach, students should be aware that entrepreneurs are better able to gather new ideas and knowledge that are potentially valuable wherever they exist. Students should be able to identify that entrepreneurs are strategic thinkers. They are individuals who are able to identify and react to great new opportunities as they arise. They should understand that the world is dynamic and that entrepreneurs need to be open to change in order to achieve their vision.

5. Feedback

Please take time to reflect and consider how the case worked in different situations: for example, with different student groups, or on different modules. The case has been tested and has been an effective part of teaching entrepreneurship to a range of undergraduate and postgraduate programmes, including Business Management, International Business Management, Marketing, and Accounting and Finance. More specifically, it has been used to support the teaching of small seminar groups on modules such as 'Entrepreneurship: an international perspective', 'Enterprise' and 'Strategy'. The case is particularly useful for those students who already understand the need for alternative approaches to strategic thinking, but who may not understand the uncertainties associated with entrepreneurial approaches to opportunity recognition and strategy development. This case could also be used on other programmes of study such as Master's degrees in enterprise, entrepreneurship and/or innovation, MBA courses, or with doctoral students. Potentially, the case is suitable for use as a written assessment or for an examination, role-playing or other forms of use.

Note

¹ Structure based on *The Case Teaching Note J Heath* (John Heath Associates), website: http://www.ecch.com/files/downloads/casewriting/teachingnote.ndf

References (including additional suggested reading)

Chandler, A.D. (1963), Strategy and Structure: Chapters in the History of American Enterprise, MIT Press, Boston, MA.

Golich, V., Boyer, M., Franko, P., and Lamy, S. (2000), 'The ABCs of case teaching', *Pew Case Studies in International Affairs*, Institute for the Study of Diplomacy, Edmund A. Walsh School of Foreign Service, Georgetown University, website: www.guisd.org.

Graetz, F. (2002), 'Strategic thinking versus strategic planning: towards understanding the complementarities', *Management Decision*, Vol 40, No 5, pp 456–462.

Grant, R.M. (2007), *Contemporary Strategy Analysis*, Blackwell, Oxford.
Hamel, G., and Prahalad, C.K. (1989).

Hamel, G., and Prahalad, C.K. (1989), 'Strategic intent', *Harvard Business Review*, Vol 70, No 3, pp 63–78.

Hendry, J. (2000), 'Strategic decision making, discourse, and strategy as social practice', *Journal of Management Studies*, Vol 37, No 2, pp 955–978.

Heracleous, L. (1998), 'Strategic thinking or strategic planning?' Long Range Planning, Vol 31, No 3, pp 481–487.

Hitt, M.A., Ireland, R.D., Camp, S.M., and Sexton, D.L. (2001), 'Strategic entrepreneurship: entrepreneurial strategies for wealth creation', *Strategic Management Journal*, Vol 22, No 1, pp 479–491.

Liedtka, J.M. (1998), 'Strategic thinking: can it be taught?' Long Range Planning, Vol 31, No 1, pp 120–129.

Mintzberg, H., and Waters, J. (1985), 'Of strategies deliberate and emergent', in De Wit, B., and Meyer, R., eds, Strategy: Process, Content, Context: An International Perspective, West Publishing, St Paul, MN, pp 12–21.

Porter, M.E. (1996), 'What is strategy?'

Harvard Business Review, Vol 74, No 6, pp 61–78.

Porter, M. (2004), Competitive Strategy: Techniques for Analysing Industries and Competitors, Free Press, London.

Sarasvathy, S.D. (2001), 'Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency', *Academy of Management Review*, Vol 26, No 2, pp

Sarasvathy, S.D. (2004), 'Making it happen: beyond theories of the firm to theories of firm design', *Entrepreneurship Theory and Practice*, Vol 28, No 6, pp 519–531.

Shane, S., and Venkataraman, S. (2000), 'The promise of entrepreneurship as a field of research', *Academy of Management Review*, Vol 25, No 1, pp 217–226.

Thompson, J.L., Scott, J.M., and Martin, F. (2014), *Strategic Management: Awareness and Change*, 7 ed,
Cengage Learning, Boston, MA.

Zahra, S.A., and Nambisan, S. (2012), 'Entrepreneurship and strategic thinking in business ecosystems', *Business Horizons*, Vol 55, No 1, pp 219–229.