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Dynamic Strategy in a Turbulent Business Environment

Tsitsi Mufudza

Abstract

Today's turbulent business environment, characterised by rapid technological changes and increased globalisation, has swept away industry and market conditions that previously defined competitive conditions. Such an environment requires flexible strategic solutions that respond quickly to these rapid changes. This chapter will therefore look at the need for dynamic strategy in today's business basing on the systematic review of relevant literature. It will also focus on the need for dynamic capabilities and competencies that are necessary for coping with the ever changing business environment. The chapter highlights that capability differentials among firms are a result of choices made by management. This explains why some firms are more adaptive than others and more flexible firms have been seen to perform better under uncertain environments.

Keywords: strategy, dynamic strategy, turbulent business environment, dynamic capabilities, dynamic competencies

1. Introduction

This chapter discusses the need for a dynamic strategy in turbulent business environment. The chapter starts by giving definitions to key terms like strategy and turbulent business environment. Tools that have been traditionally used to cope with environmental uncertainty have been looked at and how they can be complemented to yield better strategies and improve performance in a turbulent business environment.

2. Methodology

In this chapter the methodology employed was the qualitative systematic review of literature on the various aspects of the topic addressed which include strategy, dynamic strategy, turbulent business environment and dynamic capabilities among others. Basic ideas on how to conduct such a systematic review were borrowed from prominent scholars in the area [1]. Both integrative and interpretative techniques were used to uncover new understanding in the area of strategy. Using this methodology, various studies on dynamic strategy and turbulent business environment were brought together from various primary qualitative studies conducted and some in depth study on the subject matter was done resulting in conclusions being drawn. Thus qualitative synthesis of literature review was used as a basis for the arguments discussed in this chapter.

3. Strategy

Strategy can be described as a plan of action that is designed to achieve a particular goal. Thus strategy is concerned with the setting and achieving of objectives and the process also involves the allocation of resources, which requires some consistency and cohesiveness of actions and decisions [2]. From its conception as a discipline, soon after the second world war, strategy has been greatly associated with systematic and detailed planning which distinguished it from other forms of planning. However this conception has been greatly challenged in the past few years as the business environment has become more dynamic and turbulent. Some strategic tools to cope with uncertainty in a turbulent business environment have been rendered ineffective, hence the need to seriously consider the phenomenon of strategy in a turbulent business environment. Thus there has been great emphasis on the need to shift from regarding strategy as a detailed and systematic plan to considering them as mere guidelines for action in a dynamic business environment. However research has proven that strategy is an indispensable aspect even in a turbulent environment though there is need to move away from traditional approaches to strategy and embrace more reactive approaches centred on strategic agility and organisational flexibility.

4. Turbulent business environment

Turbulence can be best described as 'unpredictable uncertainty for strategic planning purposes' [3]. Environmental uncertainty is believed to arise when managers are not 'confident that they understand the major changes and events in their industries' [4]. Such an environment has also been regarded by some scholars as 'hypercompetitive' and it was taken to refer to 'an environment of fierce competition leading to unsustainable advantage or the decline in the sustainability of advantage' [5]. Earlier work on turbulence can be traced back to the work on capitalism and creative destruction [6]. However a hypercompetitive environment is regarded as surpassing the earlier 'creative destruction' of the 1930s which was mainly as a result of technological innovation and revolution [5]. Environmental turbulence can be taken to have been necessitated by several aspects which include rapid product innovation, changes in customer tastes and preferences, increased rates of technology transfer, employee and talent mobility, new internet capabilities, rapid technological changes and globalisation. Earlier studies attributed such changes to aspects like the emergence of trading blocks, excess capacity, structural changes, environmental concerns, reduced protectionism and technological discontinuities among others [7]. Failure to anticipate and embrace changes brought by these forces has been greatly attributed to the changing fortunes of the former leading and largest companies like General Motors, IBM and Xerox [7].

Thus, research has shown that a turbulent business environment defies the key assumptions of traditional strategic planning which are regarded as mostly applicable in identifiable and stable industry structures [5, 7, 8]. This therefore necessitated the re-evaluation of most strategic management tools and concepts. For instance, sustainable competitive advantage, which was regarded as a key component of a good strategy, was regarded as non-existent and instead organisational flexibility and dynamic capabilities were considered as sources of sustainable advantage [5, 8]. Furthermore, arguments around Porter's Five Forces model and the Resource Based View (RBV) of the firm were challenged since they were taken to be based on a stable business environment. This was due to the difficulties associated with measuring and assessing buyer, supplier and rivalry power as industries' boundaries

become blurred and hard to define in turbulent environments. Under such conditions the major underlying assumptions of the RBV were also defied as factor markets were considered as moving towards constant disruption and perfection as a result of rivalry and innovation.

Thus under hypercompetitive conditions, temporary rather than sustainable advantages have been identified as existing and new theories like 'entrepreneurial action' [9] were formulated to replace some traditional strategic models. Changes in the business environment can either be incremental (also termed evolutionary or continuous) or discontinuous (revolutionary). Under these types of change different strategic approaches are called for to enable firms to cope with the growing uncertainty.

5. Tools for coping with environmental uncertainty

Various tools have been traditionally used by firms to cope with strategic planning in fast paced business environments. These tools include environmental scanning, scenario analysis, real options analysis and technology and product road mapping. These tools and techniques have been used to identify drivers of change in the external business environment of companies. These tools will be looked at below, but it should not go unmentioned that these tools have been criticised on the grounds that most drivers of change interact in ways that are novel and unforeseeable to be easily detected by these tools.

5.1 Environmental scanning

Environmental scanning has been regarded as a process of acquiring and using information about trends, events and relationships in an organisation's external environment which assists management in planning the future course of action [10]. It is believed that environmental scanning is well defined, systematically planned and executed and that it is directed at systematic and comprehensive data. This process is also taken to rely on regular, casual and informal information sources from all stakeholders [11] and it involves both information searching and viewing [10]. Organisations carry out environmental scanning so that they understand the external forces at work and develop effective responses to improve or secure their position in the future. They also scan the environment in order to identify opportunities and threats, avoid surprises, gain competitive advantage and enhance their short and long term planning.

The ability of an organisation to adapt to its external environment depends heavily on its knowledge and interpretation of external changes at work. The quality of the information gathered from the scanning process or of the environmental scanning process itself is determined by the cognitive abilities of management. Furthermore, the organisation's ability to survive depends on its ability to align its internal activities with the external constituents. Thus the scanning process should provide good quality (anticipatory) information that enables it to respond to the future developments in the environment by creating innovative entrepreneurial behaviour [11].

Research has shown a positive correlation between environmental scanning and improved organisational performance [10]. However scanning alone has been regarded as insufficient to assure performance, but it should be aligned with strategy and the information obtained must be effectively utilised in the strategic planning process. It has been recommended that scanning should enhance and increase discussion and communication about future oriented planning in organisations and should induce strategic and organisational learning.

5.2 Scenario analysis

Scenario analysis is one technique used to measure operational risk in organisations. Operational risk is defined as ‘the risk of loss resulting from inadequate or failed internal processes, people or systems or from external events’ [12]. Scenario analysis is a quantitative tool used to assess the impact of extreme events based on hypothesis or historical scenarios. It can be identified as a stress testing tool that allows institutions to obtain useful results from examining scenarios that cover infrequent but selective risks that can have a great impact on institutional operations.

In scenario analysis estimations are based on ‘what-if’ scenarios that are generated on the basis of catastrophic events that occurred in other organisations, external data, expert opinion or extremely imagined events [11]. It is meant to investigate whether an organisation would be able to undergo exceptional risk losses. Basically there are two groups of scenarios whose classification is determined by the event type they define. The first category makes use of historical events like the September 2011 terrorist attacks or a strike and management investigates the potential impact of these events on the organisation. The second group uses hypothetical scenarios like some plausible risk events that have not yet happened but have some probability to occur.

However great care must be taken in using scenario analysis since it is very subjective and depends heavily on the choice of the scenarios used. Thus the use of irrelevant scenarios or bad assumptions can result in irrelevant losses.

5.3 Real options analysis

A real option is regarded as the ‘right but not the obligation to acquire, expand, contract, abandon or switch some or all of an economic asset on fixed terms on or before the time the opportunity ceases to be available’ [13]. As suggested in the definition, some examples of real options include:

- Option to switch resources
- Option to expand
- Option to delay
- Option to wait and see
- Option for future growth

Real options use options theory to evaluate physical or real assets and they give certain reactive plasticity on decision makers like the options to divest, wait or invest in in the face of new information. Traditionally, real options have been used to analyse troubled firms and firms involved in research and development with considerable amounts managerial flexibility under significant amounts of uncertainty.

The real options approach is highly regarded since it ponders upon numerous decision pathways in the face of high uncertainty. It also gives management room for flexibility in selecting the optimal strategies or options along the way when new information becomes available. This approach is credited for assuming a multidimensionality series of decisions that give management room to adapt in the face of changes in the business environment. This helps management to hedge themselves against negative risks. Thus management has room to make strategy adjustments in the case of future uncertainty. Furthermore, as information becomes available and uncertainty clears, management can choose the best strategies to implement.

5.4 Technology and product road mapping

This is a technology forecasting tool that aims at improving the 'strategic technology planning process by linking the acquisition of technology to strategic objectives and the associated business and market drivers, enabling soundly-based technology investment to be taken' [14]. Technology and product road mapping is used by companies to determine the future technological evolutions and appropriate actions that would enable companies to compete and survive in such a future.

It is believed that technology road mapping has gone through two generations and that a third generation stage is still at its infancy stage [14]. The first generation is believed to have emerged from the 1970s to the mid-1980s. This generation is believed to have been centred on methodologies aimed at forecasting technology more accurately and clearly. The second generation was centred on methodologies aimed at improving strategic technology planning decisions and it span from the mid-1980s to the end of 1990s. The third generation with methodologies aimed at producing integrated technology management activities is believed to have emerged from the end of the 1990s to date. However it is believed that very few companies have adopted the third generation due to lack of supporting software that enable them to integrate it into their business processes.

6. Strategic foresight

The above tools have been commonly used by businesses to enhance decision making at business and corporate level strategies. Since most of the techniques are future oriented, the terms 'strategic foresight' and 'corporate foresight' have been used to encompass these practices [4]. Strategic foresight is defined as a 'future-intelligence gathering and medium to long-term vision-building process that aids present day decisions and mobilises joint actions in a systematic and participatory way' [4].

It is also defined as a set of technologies, tools, methods and actions that are used to provide an accurate description of both the present-day and future business environment of an entity [15]. It is considered as combining both expert analysis and technology to determine the most influential factors in the business environment that will have considerable effect on business development. Strategic foresight is also considered to happen 'when any planner uses scanned inputs, forecasts, alternative future exploration analysis and feedback to produce or alter plans and actions of the organization' [16].

Strategic foresight has been criticised due to its failure to make reliable predictions [4]. It is argued that although the predictions of strategic foresight are relatively accurate in the short run, forecasting accuracy is likely to diminish in the medium and long run due to the unpredictability nature of technological, economic, political and social drivers of change that work together in unusual and unanticipated ways. Therefore, reactive methodologies based on strategic agility and organisational flexibility have been encouraged under turbulent environments instead of planning.

However research has shown that there are certain circumstances under which foresight based approaches and planning are useful in helping the alignment of strategic decisions with changing environments. Furthermore, there are also circumstances under which flexible approaches are useful. For instance, in a study conducted on strategic planning and organisational flexibility in turbulent environments, it was found that in the case of continuous drivers of change that do not result in boundary uncertainty, strategic foresight tools are useful. Organisations

operating under such circumstances are therefore encouraged to invest heavily in predicting changes and new events and align them with their goals. However the same study above also found that in the case of discontinuous change, which results in boundary uncertainty, managers should emphasise agility and stay flexible so that they adapt to environmental changes as they develop. The study also found that in the case of discontinuous change, foresight techniques and practices like product and technology road mapping can become sources of indolence which may lock managers 'into the (wrong) future they predicted and thus distracting them from the real future' [4].

The above was the case of Nokia which was locked in its Symbian operating systems that it had invested so heavily in. Nokia had used environmental scanning, product and technology roadmaps to define its competitive position and developing its product portfolio in the mobile communication industry. However, Nokia was not able to sustain its advantage over Google and Apple which entered the market unexpectedly exploiting the software skills they had originally developed in the PC industry. This entry of Apple and Google into the market can be identified as an example of a discontinuous driver of change that results in boundary uncertainty. Thus under such circumstances, strategic flexibility and learning enable firms to grasp the new key components and players of their industry as soon as they emerge and adapt quickly.

The above brings us to the issue of dynamic strategy which contends that strategic planning is dynamic and it involves a complex pattern for actions and reactions. Thus strategy making can thus be planned and partially unplanned.

7. Dynamic capabilities

A capability is defined as a 'collection of organizational routines that enable a firm to perform some set of tasks on a repeated or consistent basis' [17]. Capabilities are taken to encompass 'organisational processes by which resources are utilised to create growth and adaptation within changing environments' [18]. Capability identification, selection and creation is an important (practical) strategic decision whose competitive performance is equivalent to decisions about 'which markets to enter, how a firm can position itself in the market, in which markets to exploit existing resource capabilities, what prices to charge, how to deter entry and other traditional strategic variables' [19]. Thus in the same manner business organisations compete in markets for products, they also compete to create technological, operational and organisational capabilities that provide them with advantage in those product markets. This entails a positive correlation between decision about product market entry and position and decision capability creation [19].

It has been argued that investments in capabilities create strategic options for competition in product markets, and the firm's capability strategy is to make a choice of investments in different types of capabilities. From a capabilities perspective, the firm's strategic problem has been regarded as that to choose among alternative investment paths for building capabilities that would underlie competitive advantage [20]. The formation of capabilities is a result of various kinds of activities that include autonomous learning by doing, business process redesign, experimentation, investments in human and physical capital, technology adoption and Research and Development projects [19].

It has been posited that the firm's capability strategy involves choosing between deepening their existing capabilities contrasted with broadening their capabilities collection to include new sets of capabilities and this has been demonstrated in the form of a map with some examples provided [19]. This map is shown in **Figure 1**.

The above author argued that companies' investments in capabilities can either be specialised or generalised as indicated in the map. However it was posited that both specialised and generalised capabilities can be subjected to broadening and deepening investments. For example as shown in **Figure 1**, when Honda (well known for automobile production) engages in vehicle design simulation methods, this is a typical capabilities' deepening investment. However when Honda engages in building capabilities in light jet design, this is a typical capabilities broadening investment.

Likewise Google's expansion into auto designs is an example of broadening investment, whereas Google's research and development on internet search is an example of deepening investment as shown in **Figure 1**.

Dynamic has been defined as the 'capacity to renew competences so as to achieve congruence with the changing business environment' [21]. Thus dynamic capabilities are taken to represent the 'firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments' [21].

As explained earlier on, the essence of dynamic capabilities emerged after the realisation through research that sustainable advantages suggested by traditional strategy theories are rare, short-lived and may be fortuitous [7]. As a result, dynamic capabilities and organisational capabilities were regarded as sources of sustainable competitive advantage. However it should be pointed out that there has been no empirical evidence established to the effect of the sustainability of capabilities over extended periods, though it has been established that inertia and complacency weaken the sustainability of dynamic capabilities [7].

The dynamic capabilities theory is regarded as an extension to the Resource Based View (RBV) framework which argues that competitive advantage is a result of the firm's ability to manage its internal resources. This is because some resources are regarded as firm specific, not transferrable and difficult to imitate. Thus in the RBV framework, a firm is regarded as a 'collection of resources that are valuable, rare, imperfectly imitable and non-substitutable' [22]. However, the RBV has been criticised on the grounds that while it identifies mechanisms that build competitive advantage, it does not explain how these mechanisms operate [22].

Dynamic capabilities are a framework that is used to understand differences in firm level capabilities. The framework holds that firm level differences in

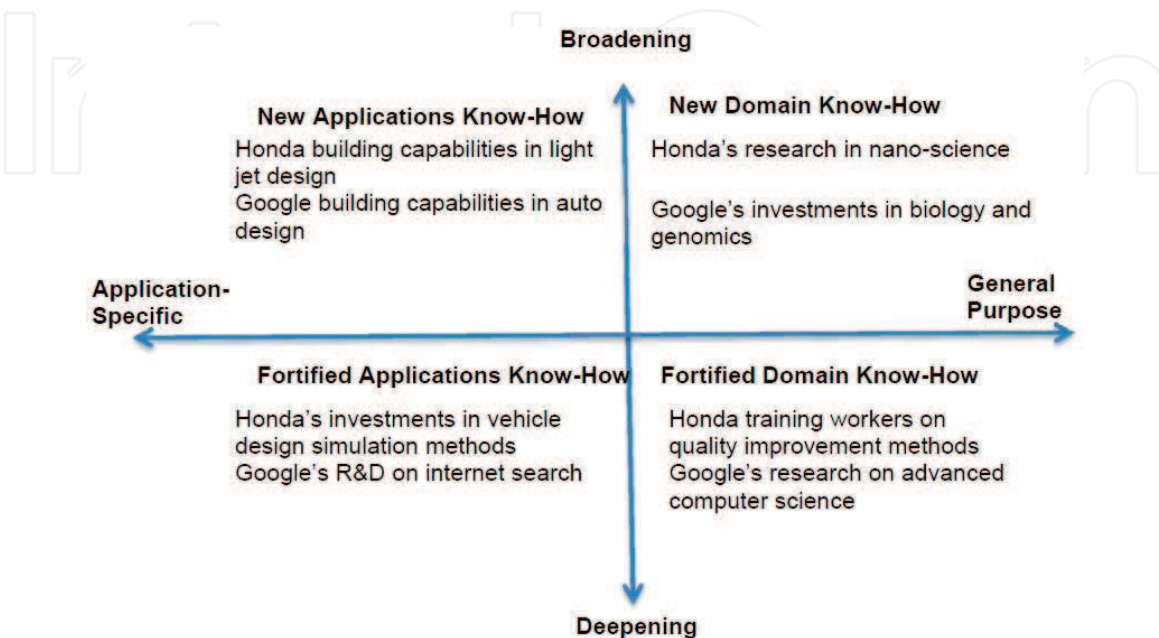


Figure 1.
 Map for capability strategy choices. Source: Pisano [19].

capabilities are rooted in three factors namely asset positions, processes and paths which are explained below.

- a. Asset positions—which hold that a firm’s ability to change the future range of capabilities is constrained by its current stock of capabilities. Here assets refer to the legacy resources namely organisational competences, technical skills and knowledge that determine the firm’s options for future capability expansion.
- b. Processes—which refer to aspects like management systems, resource allocation processes and governance structures that shape organisational adaptability. It is this capacity to reconfigure a firm’s asset positions and specifically the processes that underlie this capacity that led to the formation of the construct called dynamic capabilities.
- c. Paths—which hold that since most capabilities develop over time and are cumulative in nature, they involve commitments to ‘paths’ instead of discrete projects. This entails firms to engage themselves in paths for capability that lead to competitive advantage.

It is believed that capability differentials across firms is mainly a result of management choices, and management must be able to influence the creation and evolution of their firms’ capabilities. Thus management discretion in the selection of paths, together with some constraints faced can result in differences in firm capabilities. The dynamic capabilities approach can be used to explain firm level differentials and it also assists managers in making capability decisions. The approach helps to explain why some firms are more adaptive than others. More flexible firms are likely to do better in uncertain environments.

8. Conclusion


In conclusion, it can be posited that, in a dynamic business environment, traditional tools for copying with strategic planning are necessary but not sufficient in ensuring business sustainability. Furthermore the nature of changes experienced determine the strategic approaches adopted by managers. Managers should also make proper capabilities decisions that will enable their firms to cope with uncertainty experienced in their business environments.

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References

- [1] Gülmezoglu AM, Chandler J, Shepperd S, Pantoja T. Reviews of qualitative evidence: A new milestone for Cochrane. *Cochrane Database of Systematic Reviews*. 2013;(11):1-2
- [2] Grant RM. *Contemporary Strategy Analysis: Text and Cases Edition*. New Jersey: John Wiley & Sons; 2016
- [3] Ramírez R, Selsky JW. Strategic planning in turbulent environments: A social ecology approach to scenarios. *Long Range Planning*. 2016;**49**(1):90-102
- [4] Vecchiato R. Strategic planning and organizational flexibility in turbulent environments. *Foresight*. 2015;**17**(3):257-273
- [5] D'Aveni R. *Hypercompetition: Managing the Dynamics of Strategic Management*. Free Press: New York; 1994
- [6] Schumpeter JA. *Change and the Entrepreneur*. Essays of JA Schumpeter; 1934
- [7] Prahalad CK, Hamel G. Strategy as a field of study: Why search for a new paradigm? *Strategic Management Journal*. 1994;**15**(S2):5-16
- [8] D'Aveni RA, Dagnino GB, Smith KG. The age of temporary advantage. *Strategic Management Journal*. 2010;**31**(13):1371-1385
- [9] Smith KG, Cao Q. An entrepreneurial perspective on the firm-environment relationship. *Strategic Entrepreneurship Journal*. 2007;**1**(3-4):329-344
- [10] Choo CW. *Environmental scanning as information seeking and organizational knowing*, vol. 1. Prima Vera Working Paper. 2002
- [11] Rupcic N, Zekan SB. Business environment scanning: Prerequisite for sustainable learning company. In: *An Enterprise Odyssey*. International Conference Proceedings. University of Zagreb, Faculty of Economics and Business; 2012, June. p. 1132
- [12] Rippel M, Teply P. Operational risk-scenario analysis. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*. 2010;**4**(6):723-730
- [13] Robinson I, Kyng T. *Real Options Analysis: The Challenge and the Opportunity*. Institute of Actuaries of Australia Biennial Convention; 2003
- [14] Gindy NN, Cerit B, Hodgson A. Technology roadmapping for the next generation manufacturing enterprise. *Journal of Manufacturing Technology Management*. 2006;**17**(4):404-416
- [15] Strategic Foresight White Paper. 2013. www.agentielle.com
- [16] Coates J, Durance P, Godet M. Strategic foresight issue: Introduction. *Technological Forecasting and Social Change*. 2010;**77**(9):1423-1425
- [17] Winter SG. Understanding dynamic capabilities. *Strategic Management Journal*. 2003;**24**(10):991-995
- [18] Pettus ML, Kor YY, Mahoney JT. A theory of change in turbulent environments: The sequencing of dynamic capabilities following industry deregulation. *International Journal of Strategic Change Management*. 2009;**1**(3):186-211
- [19] Pisano GP. *A Normative Theory of Dynamic Capabilities: Connecting Strategy, Know-How, and Competition*. 2015

[20] Teece D, Pisano G. The dynamic capabilities of firms: An introduction. *Industrial and Corporate Change*. 1994;**3**(3):537-556

[21] Teece DJ, Pisano G, Shuen A. Dynamic capabilities and strategic management. *Strategic Management Journal*. 1997;**18**(7):509-533

[22] El Gizawi N. The dynamic capabilities theory: Assessment and evaluation as a contributing theory for supply chain management [bachelor's thesis]. University of Twente; 2014

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