



The Role of Strategic Foresight on Dynamic Capabilities

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ARTICLE INFO	ABSTRACT
<p><i>Received: 02 November 2022</i></p> <p><i>Reviewed: 07 November 2022</i></p> <p><i>Revised: 08 January 2023</i></p> <p><i>Accept: 18 January 2023</i></p>	<p>Purpose: Strategic Foresight (SF) is required for an organization in facing Uncertainty, Complexity and Ambiguity environment to maintain relevant in future. Recently, researchers have argued that strategic planning (SP) can be considered a dynamic capability (DC) in organizations. Thus the purpose of this Paper is investigate the role of Strategic Foresight on Dynamic Capabilities of firms.</p> <p>Methodology: This theoretical effort presents a brief review and argues that Strategic Foresight is one of the micro-foundations of Dynamic Capabilities because it supports the seizing and continuous alignment of assets and resources. Under this perspective, SF has a role in the development and implementation of all organizational DCs and is not restricted to a DC specifically.</p> <p>Findings: The results show that strategic foresight is effective in creating dynamic capabilities.</p> <p>Originality/Value: Although scholars generally agree that companies require dynamic capabilities to flexibly respond to and shape uncertain environments, only little empirical research has been conducted on the factors that facilitate the development of these capabilities. This study addresses this gap and introduces strategic foresight as an important antecedent of firms' dynamic capabilities.</p>
<p>Keywords: <i>Strategic Foresight (SF), Dynamic Capabilities, Oil, Gas & Petrochemical Sector.</i></p>	

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1. Introduction

Increasing environmental uncertainty has brought increasing challenges to various organizations. Today, environmental uncertainty has spread in the business environment; the advent of globalization, highly destructive business models, and rapid technological change have increased the instability and complexity of the competitive landscape. The growing entanglement of organizations with their environment often results in emerging and unpredictable behaviors. It is very unlikely that unforeseen events, with significant consequences, will only affect one company individually and not affect the entire industry. The growing uncertainty of today's environment has faced significant challenges for organizations, and all companies, depending on the type of environment in which they operate, more or less deal with it. One of the most effective ways that organizations can cope with these changing conditions is to develop dynamic capabilities [1]. However, the future cannot be foreseen. Therefore, its strategic thinking process requires a formal method of scenario construction in which key variables can be considered in a context of probabilities and unpredictability. The approach to be resorted to is known as Strategic Foresight, a method for understanding, mapping, and influencing the future, that can be applied both to firm level and regional development [2]. Strategic foresight is understood as a set of practices that help actors choose an optimal path forward by understanding potential consequences [3].

1.1. Strategic Foresight (SF)

Inculcating dynamic capabilities of public organizations may become an important source of building institutional capacity to deal with future challenges [4]. The methodology known as strategic foresight is an important tool to be used in long-term strategic planning activities and in support of the decision making process in public as well as private sectors [5]. Firms globally encounter challenges of maintaining business superior performance over a long period. Most business organizations managers in today's modern age, find it difficult to constantly achieve targeted business performance due to poor strategic insight and agility to manage uncertainty business environment and globalization in the 21st century. The majority of firms in the 21st century have recorded a fast decline in financial and non-financial performance resulting from a poor understanding of strategic agility dimensions to tackle global business trends and environmental turbulence [6]. In open foresight, companies jointly look into the future, and exchange know-how in order to create added value [7].

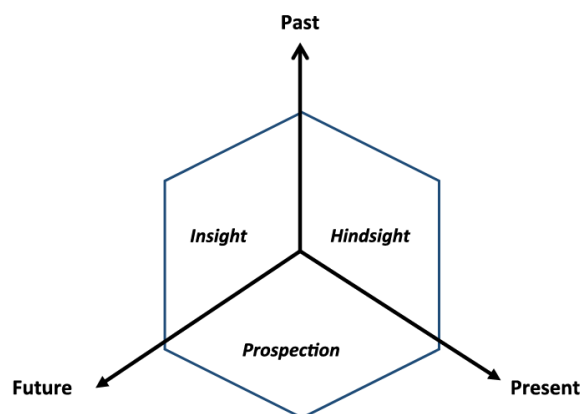


Fig. 1. Organizing Dimension of Strategic Foresight [8]

- ***Environmental scanning***

One of its distinguishing qualities is the time horizon, which is defined as the time scale of environmental scanning focusing on various horizons ranging from short (up to one year) to long (up to ten years) (up to 30-50 years in the future). More academics agree that organizational foresight is most useful in the long and medium term. For instance, in the managerial foresight scale proposed by Amsteus [9], managers are asked to take into account future conditions, plans and objectives that are at least 2 years in the future. Others, on the other hand, emphasize the significance of foresight in short-term planning because the scanning system contains intrinsic blind spots that require forethought to scan on a regular basis [10, 11]. Environmental scanning can generate a lot of new data but the tricky part is to select the knowledge that is valuable, to determine the ramifications for action and choose a preferred future scenario. Companies must acquire and filter technological, market, and competitive information when new opportunities are first found in order to determine the consequences for action [12].

- ***Scenario-planning***

Scenario planning requires organizations to have planning systems in place that conduct various hypothetical scenario analyses. Such analysis may be done through mechanisms such as simulation, stress tests, etc. It enables the organization to develop different contingency measures against different possible outcomes [13]. A critical issue in Strategic Foresight approaches is the expected effect on the organizational and individual behavior change, as understanding, mapping, and influencing the desired future is a function of the group's effort to adopt a more disruptive or conservative scenario in a long-term thinking and planning context. As a learning process, a Strategic Foresight experience, due to the nature of new knowledge co-creation, can foster mindset changes [14].

- ***Knowledge-creation***

Dufva and Ahlqvist [15] divide knowledge into knowledge that is produced and shared (articulated and codified knowledge) and knowledge embodied by the participants. Specifying the elements of foresight systems, they discuss memory objects (i.e., crystallized process outcomes such as roadmaps) and metaphors (heuristics for thinking about complex issues). While embodied knowledge and metaphors are likely to be important for the functioning of foresight systems, they are intangible and thus challenging to study, particularly in inter-organizational studies such as ours. Therefore, we focus on foresight knowledge as memory objects produced by foresight actors as well as the methods that enable the production and processing of such knowledge.

- ***Culture***

Most authors agree that culture represents the values, norms, artifacts, and underlying assumptions that are shared by a group of people [16]. The theory behind the flexibility and externally oriented adhocracy culture is that innovativeness, vision and constant change produce effectiveness. The clan culture is located along the internal and flexibility dimensions. The main credo of companies characterized by this culture is that a focus on human development, cohesion, and high commitment produce effectiveness. The externally and control-oriented market culture assumes that competing aggressively

and customer focus produce effectiveness. The hierarchy culture has an internal and control focus and pursues effectiveness through control and efficiency, standardized rules and procedures, and well-defined responsibilities [17].

2. Dynamic Capabilities (DC)

Today, due to the rapid advances in science and technology, the ever-changing needs and demands of customers, the environment of organizations has become more dynamic, uncertain and complex. In fact, these changes have led to an era called uncertainty. To cope with uncertainty and shape uncertain environments, researchers generally agree that organizations need dynamic capabilities [18]. Organizations are often interested in developing their dynamic capabilities to respond to environmental changes [19]. Dynamic capabilities were first comprehensively described by Teece et al., who pointed out that an organization is constituted not only by resources, but also by mechanisms for the formation and use of habits and capabilities [20]. Dynamic capabilities allow for internal and external skills, resources, and competencies to adapt, integrate, and reconfigure to meet the demands of the environment. Zahra et al. state that dynamic capabilities are used by organizations to build business strategies, enter new markets, acquire new competencies, commercialize new technologies, and thus increase the speed of response to changes in the organization's environment [21].

Dynamic capabilities are defined as “the capacity of an organization to purposefully create, extend, or modify its resource base” [22]. The dynamic capabilities approach assumes that a firm's heterogeneous resources and capabilities can be modified over time, analyzing their evolution and their adaptation to changing external conditions. The literature on dynamic capabilities has recently sought to analyze and explain the internal processes that occur in the firm when a new competitive advantage must be developed [23].

3. Funding

The extant literature seems to reveal that, only a few empirical studies have been published on the relationship between strategic foresight (SF) and dynamic capabilities (DC) [24]. Disruptive changes (e.g., new technologies, services, and business models) present a variety of opportunities and risks for companies. They can contribute significantly not only to economic success but also to greater sustainability. Nevertheless, it is not a trivial task for established companies to recognize the potential of disruptive changes and to implement innovations in time. In this context, strategic foresight and dynamic capabilities are proposed as promising approaches. Changes in strategic orientation have been shown to be a significant element for a company's capability to integrate, combine and build internal and external resources.

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