

A REAL OPTION PERSPECTIVE FOR INDUSTRIAL ENTERPRISES IN A DYNAMIC ENVIRONMENT

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Abstract: *The study relied on the review of literature to offer an interesting framework that emphasizes the relationship between real options (ROs), knowledge-based view (KBV), resource-based view (RBV), dynamic capabilities (DCs) and strategic flexibility (SF) - management tools that have an important role in an uncertain and rapid changing business environment. The paper proposed a business model perspective that includes elements that conduce to an innovative management because are based on flexibility and dynamism. The findings are very useful for decision-makers from organizations, researchers and scholars.*

Key words: *real options, resource-based view, dynamic capabilities, strategic flexibility, industry sector.*

1. Introduction

In order to be successful, organizations “should actively look for opportunities to exploit their strategic abilities, adapt and seek improvements in every area of the business, building on awareness and understanding of current strategies and organizations must be able to act quickly in response to opportunities and barriers” [20]. In addition, the paper focus on internal elements of an enterprise from the industrial sector that represent sources in a competitive business environment. This elements refer to real option analysis (ROA), knowledge-based view (KBV), resource-based view (RBV), dynamic capabilities (DC) and strategic flexibility (SF). Also, the paper proposes a business model direction, useful for managers.

2. Real Option Analysis (ROA)

Real options (RO) represent “the investment in physical assets, human competence, and organizational capabilities that provide the opportunity to respond to future contingent events” [15]. ROA represents an important instrument for managers because “offers a new perspective on organization’ resource allocation processes by informing the strategic decision makers, offers unique and precious predictions on organization’ decisions for different types of strategic choices under uncertainty and emphasizes dynamic efficiency gains, downside risk reduction, and the organization’s ability to seize upside opportunities

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over time by shifting value chain activities across borders in response to different uncertainties” [22-23]. Mun [18] argues that “traditional approaches assume a static decision-making ability, while real options assume a dynamic series of future decisions where management has the flexibility to adapt given changes in the business environment”. The critics of the literature argue that RO are difficult to value with certainty in real word applications. For some critics, ROA represents only an academic tool but for other critics ROA” ends up choosing the highest-risk projects as the higher the volatility, the higher the option value” [18]. In a dynamic business environment, characterized by rapid change, the volatility is considered to be the critical variable with the most important impact on the option value. In the literature, there are three approaches to estimate the volatility: twin security information, Monte Carlo simulation and closed-form expression [17-12].

In the ROA literature, there exist different types of options that influence the investment decisions: option to wait to invest, option to abandon, option to switch, option to contract, option to grow, option to stage, call options, put options, timing options or portfolio of options [4-5]. Benchmarking approaches correlated with real options are better instruments and tools to the capital budgeting methods: discounted cash flow analysis, decision tree analysis, sensitivity analysis and contingent claim analysis. To evaluate a project profitability with discounted cash flow analysis are used the net present value (NPV), the payback period and the internal rate of return. Decision-tree analysis represents “a project as a sequence of decisions and possible realizations of chance events with known probability distributions in a tree structure during the life time of the project” [10]. The sensitivity analysis is used to identify the key variables and to determinate their impact on NPV [31]. Contingent claim analysis involves the transformation of “the real probabilities into risk-adjusted probabilities such that the algorithm can use a constant, risk-free interest rate that is independent of the project's risk structure when varying each variable at a time” [25].

3. Knowledge-Based View (KBV) and Resource Based-View (RBV)

The new “knowledge-based economy is built on information, technology, the sharing of knowledge and intellectual capital” [1]. Knowledge is considered a “key organizational asset and its creation, dissemination and application as a critical source of competitive advantage” [1]. The concept “knowledge” is “apparently consisting of data, information, intelligence, skill, experience, expertise, ideas, intuition or insight in the context in which it is used” [11].

Knowledge “has been treated systematically much like other tangible resources and many organizations are exploring the field of knowledge management (KM) in order to improve and sustain their competitiveness” [34]. It is considered that the major productive resource of the firm is its knowledge [26].

A trend in the strategic management practices is emphasized by the resource - based view of an organization. Resources are defined in the literature in different approaches. As Barney (1996) and Wernerfelt (1984) had shown, resources “represent human, physical and organizational assets that implement value-creating strategies” [19]. Resources are “the foundation for strategy and unique bundle of resources generate competitive advantage leading to wealth creation” [2-6]. Wernerfelt (1984), defined resources “as those tangible and intangible assets which are tied semi-permanently to the firm” [32]. RBV model is a

method “intended to analyze and identify strategic advantages owned by an organization based on its capitals, capability, performance and culture [27].

4. Dynamic Capabilities (DC)

An organization can be flexible through its dynamic capabilities and can adapt its resources to changing situations. Dynamic Capabilities (DCs) represent “the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” [30]. Another approaches emphasize that DC represent “the subset of the competences/capabilities which allow the firm to create new products and processes and to respond to changing market circumstances” [14].

DCs in general have been classified under different typologies. A typology of dynamic capabilities suggests operational (zero level) and dynamic capabilities [33]. Teece (2007) propose three types of capabilities: „the capacity to sense and shape opportunities and threats, to seize opportunities and to maintain competitiveness through enhancing, combining, protecting and when necessary, reconfiguring the business enterprise’s intangible and tangible assets” [29].

5. Strategic Flexibility (SF)

Flexible strategy represents an important topic in a dynamic and competitive business environment because it implements “creative ideas and innovations to fulfill customers’ various needs and expectations” [16-27]. In the literature there are numerous definitions of the strategic flexibility. SF represents “the firm’s ability to deal with economic and political risks quickly by responding in either a pro-active or a reactive way to threats and opportunities in the market place” [13]. Strategic flexibility “describes one of organization’s dynamic potentialities which gives advantages in dynamic and competitive market [27].

Research on strategic flexibility topic emphasizes three interrelated elements: resource flexibility [15] process flexibility and strategic options. In dynamic business environments, organizations must have capabilities and core competences to develop a unique set of resources to gain competitive advantage. The key to success consists in the capability of the managers regarding to the balance between real flexibility and its model representation [21].

6. Business Model for Industry Sector

Business models refer to “the logic of the company- how it operates, creates and captures value for stakeholders in a competitive marketplace - strategy is the plan to create a unique and valuable position involving a distinctive set of activities” [7]. In addition, a business model contains a system of different elements. The aim of a business model is “the description of sufficiently precisely designed business model assisting with decision finding with the aid of a business model to be implemented” [24]. The author’s contribution is based on a detailed research of the scientific literature and a propose of a business model direction for the industrial enterprises. The aim of the business model is to help managers to elaborate the best strategy using models to obtain performance with their own resources, capabilities and knowledge and also, gain competitive advantage.

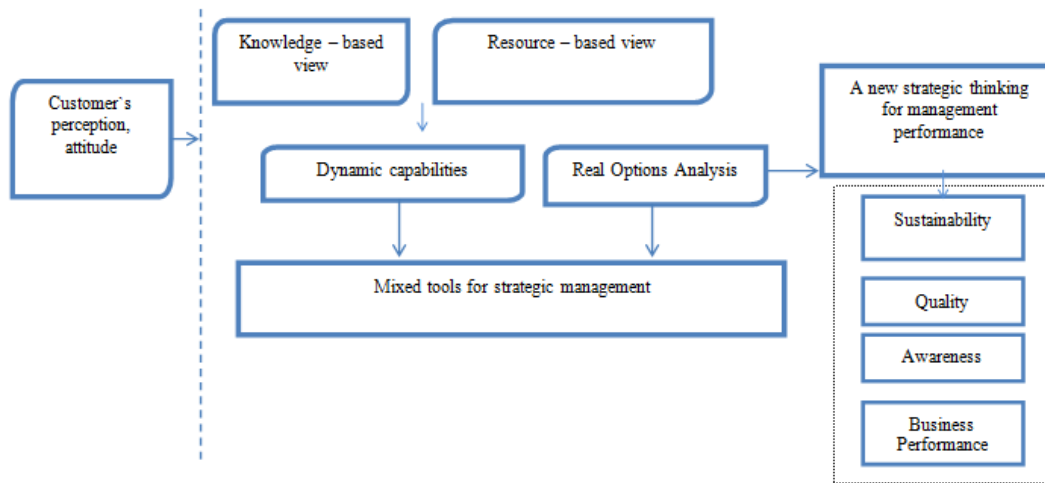


Fig. 1. *Business Model*

The model illustrated in Figure 1 is based on customer's perception and attitude, concepts such as knowledge-based view, resource-based view, dynamic capabilities and real options as tools for strategic management that offer a new strategic thinking for management performance which conduce to sustainability, quality, awareness, technical and business performance. Knowledge represents a "fluid mix of framed experiences, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information" [9]. Resources allow "the firm to conceive of and realize strategies intended to increase its effectiveness" [3]. Dynamic capabilities represent "the firm's processes that use resources - specifically the processes to integrate, reconfigure, gain and release resources - to match and even create market change" [26]. Nowadays, the "voice" of the consumer is the most important element that influence the organization and its evolution.

7. Conclusion

RBV, KBV, DC conceive an organization as a bundle of resources and capabilities. They suggest that resources and dynamic competences influence an organization performance. Strategic flexibility is one of the most important element of the decision-making process in a dynamic business environment. Real options continue to be an interesting tool dedicated to finance and management area because they present "a unique opportunity for the decision maker to incorporate and value managerial flexibility in a business environment characterized by always increasing amounts of uncertainty and fast-paced change" [8].

The study offered a complex analysis and literature review about areas of the strategic management process correlated with flexibility. The paper proposed a business model direction perspective. Firstly, the business model perspective focused on the customer's perceptions, attitude and behavior. Secondly, it focused on the organizational perspective. The author's contribution is based on a detailed research of the scientific literature and a business model direction useful for the industrial enterprises in a competitive and dynamic business environment.

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