



A Conceptual Note on Classification of Literature on Capabilities

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Abstract

The research literature has looked at capabilities of a firm from various dimensions. Through this conceptual note, we aim to classify the literature on eight dimensions: Definition, Portfolio, Utilization, Level, Characterization, Demonstration, Lifecycle, and Development. These eight dimensions cover the various perspectives through which capabilities literature has been approached from and furthered to. This classification is expected to enable researchers in this area to position their studies within or across one or more of these dimensions, thus providing a clear contribution by strengthening or furthering research in the area.

Keywords: Capabilities, Classification of Literature

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1. Introduction

Capabilities have been in the forefront of strategic management literature for over two decades. However, the concept has its roots in the seminal work of Penrose (1959) positing the need for internal resources for the growth of the firm. However, the concept of capabilities was reborn by the works of Wernerfelt (1984) and Barney (1991), which coined the term resource-based view and showed that distinct capabilities are required for competitive advantage. Since then there has been a lot of debate regarding the conceptual clarity of capabilities among the researchers, thus retarding the growth of the literature in the way it could have ideally progressed. This conceptual *mélange* has not only led to confusion, but also posed a serious threat to appropriate operationalization of capabilities. Through this note, we attempt to achieve two things: a) provide a structure to the capabilities studies by arranging them on eight dimensions; and b) arrive at a conceptual meta-analysis of the structure so as to understand the body of literature in a better manner.

Researchers have looked at capabilities from various dimensions. The literature on capabilities can be segregated on eight broad dimensions derived out of the research objectives of various studies in the field (Refer Appendix I for the chart). The studies on each of these dimensions attempt to either expand the understanding on that dimension or try to link that dimension with others on the chart.

Let us first look at what different dimensions signify and few examples of studies contributing towards each of them:

2. Dimensions

2.1. Definition of Capabilities

Researchers attempting to define capabilities – either on one or multiple criteria – have contributed to this dimension of capabilities literature. Since the capabilities literature has received more attention in the conceptual studies than empirical, there have been many attempts to define capabilities in one or more ways. Primarily the definitions are either uni-dimensional or multi-dimensional. In uni-dimensional definitions, usually the presence of a certain resource indicates capability, while in multi-dimensional definitions, capabilities are measured as a collective combination of knowledge, attitudes, skills and habits.

There have been several attempts to define capabilities. Learned, Christensen, Andrews, and Guth (1969) defined capability as ‘ability’ that allows an organization to achieve its goal in the face of opposition and competition. The researchers in the resource-based view link resources and capabilities by defining capabilities as unique assets or resources that could lead to competitive advantage. (Wernerfelt, 1984; Teece, 1984; Lawless, Bergh, and Wilsted, 1989; Henderson and Cockburn, 1994). Moving forward, Amit and Schoemaker (1993) defined capabilities as “a firm’s capacity to deploy resources, usually in combination, using organizational processes, to effect a desired end” (Amit and Schoemaker, 1993: 35). These and several other scholars (Richardson, 1972, Ulrich and Lake, 1990; Stalk, Evans and Shulman, 1992; Winter, 2000) have defined and explained capabilities in different manner thus creating a broad based foundation for the other dimensions of research on capabilities.

2.2. Portfolio of Capabilities

The second dimension where scholars have researched capabilities is on portfolio of capabilities. Usually it is seen that capabilities do not exist in isolation. Capabilities are often attributed to processes or routines within an organization, and there are multiple skills that are required to sustain them, thus giving rise to a portfolio of capabilities. Further, a portfolio of capabilities also gives a sense of completeness in understanding the strength of capabilities. Due to these advantages, most of the researchers that have defined or described capabilities have done it as a portfolio or collection of capabilities. Though the earlier definition by Learned et al (1962) and Amit and Schoemaker (1993) can be treated in singular sense, it would require more than one capability to put it for practical use. However, researchers in the recent times have addressed this issue by referring to a collective of more than one abilities or resources. For example, Teece et al (1997) also refer to dynamic capabilities as a collection of processes, positions and paths to cope with rapidly changing environment.

2.3. Utilization of Capabilities

A stream of research has looked at capabilities from the perspective of the utilization of capabilities. These studies look at capabilities from the purpose of their existence. This dimension starts from the business objective that the capabilities set out to achieve. Under this dimension, capabilities are more means than an end in themselves, serving as a necessary condition to achieve the stated goals and objectives.

Researchers under this dimension have looked at capabilities for different purposes like for example it can be possessing, deploying, and upgrading capabilities for

internationalization (Luo, 2000); capabilities for diversification (Rumelt, 1974), for achieving customer focus (Stalk et al, 1992) or capabilities for more broader objectives like achieving competitive advantage in the market (Barney, 1991; Peteraf, 1993). This set of researchers look at the capabilities from the end point of its utilization, thus attempting to provide a meaningful purpose to the possession and deployment of capabilities

2.4. Level of Capabilities

This stream of research studies capabilities at different levels. Capabilities have been seen residing at various levels viz. individual, team, department, firm, industry, region or nation. The difference in these type of studies is that the need and purpose of these capabilities differ from one level to another. While the individual capabilities lead to higher efficiency and effectiveness in a narrow sense, the same capability at an organizational level can lead to meaningful business performance.

Capabilities at various levels have been discussed in the literature. While some of the aforesaid researchers look at capabilities at a firm level (Wernerfelt, 1984; Barney, 1991; Teece et al, 1997), several others have taken a different perspective by looking at capabilities at an industry level (Levinthal and Myatt, 1994), or at a country level (Porter, 1990; Lall, 1992). Researchers across this dimension have aimed at explaining the capabilities and competitive advantage at different levels, in a way choosing a different unit of analysis.

2.5. Characterization of Capabilities

Characterization dimension comprises the studies that attempt to describe the capabilities due to specific nature of the capabilities. These studies hint at providing a

meaningful description to the capabilities using modifiers. Under this dimension of literature, researchers have attempted to qualify the capabilities with certain properties like dynamic (Teece et al, 1997), valuable, rare, inimitable or non-substitutable (Barney, 1991). Researchers in the area have also tried to establish functional property of capabilities like customer focus (Stalk et al, 1992), or capabilities used for information systems (Wade and Hulland, 2004). Several researchers have attempted at qualifying capabilities as competitive or strategic, depending on the scope of the capability, its impact on organizational strategy and the leverage it gives for competing in the industry (Lenz, 1980; Stalk et al, 1992). Under this dimension, researchers essentially aim at decorating the capabilities with appropriate adjectives.

2.6. Demonstration of Capabilities

Demonstration dimension represents the studies that have attempted to measure or operationalize the capabilities in an observable manner. Given the multiple dimensions on which the capabilities can be defined, it has always been a challenge to identify and measure the right capabilities explicitly. Studies that attempt to demonstrate the presence of capabilities aim at not just possession of capabilities, but also their deployment. This dimension is closely tied with earlier discussed dimensions as it provides an operational context to the other conceptual work in different dimensions.

The researchers under this dimension of literature aim at measuring the capabilities through their demonstration in the firms' actions, equipments or routines. For example, Basant and Chandra (2002) present how capabilities are built within their 3P conceptual framework of Product, Process, and Practice. The knowledge-based view of the firm has also contributed towards this dimension by focusing on the embedded

knowledge within the organizational processes (Kogut and Zander, 1992, Zollo and Winter, 2002).

2.7. Lifecycle of Capabilities

With the concept of dynamic capabilities picking up in late 1990s, there was a clear indication that the capabilities are to be upgraded over time. While upgrading, the capabilities go through different phases wherein they undergo changes such that are required by the business. Helfat and Peteraf (2003) in their seminal paper on capability lifecycles depict a general pattern and set of possible paths that characterize the evolution of an organizational capability across different stages: founding, development, maturity, and transformation. This framework is akin to organizational and product lifecycles concepts and threw open a whole new discussion on evolution of capabilities in the dynamic resource-based view. Through this concept of capability lifecycles, Helfat and Peteraf's (2003) work also implies that there is a need to look at the way the capabilities are built using internal actions and external support across organizational or product life cycle. Though in a nascent stage, this particular field of capabilities literature requires more attention and exploration to unearth the possibilities.

2.8. Development of Capabilities

Along side the research on the capability lifecycle dimension, there have been attempts to link the concept with the way capabilities develop within the organization. This stream of literature attempts at looking at how firms build up their capabilities by way of assembling, integrating, congregating or assimilating resources and knowledge from various sources.

Zollo and Winter (2002) presented deliberate learning as a mechanism for capabilities to develop. Though this dimension has seen some empirical studies in recent times, there is no theory which presents a linkage with the Helfat and Peteraf's (2003) concept of capability lifecycles. Montealegre (2002) and Keil (2004) have proposed two different types of models for capability building in different sectors. Studies in this stream of literature draw heavily from organizational learning and knowledge management fields.

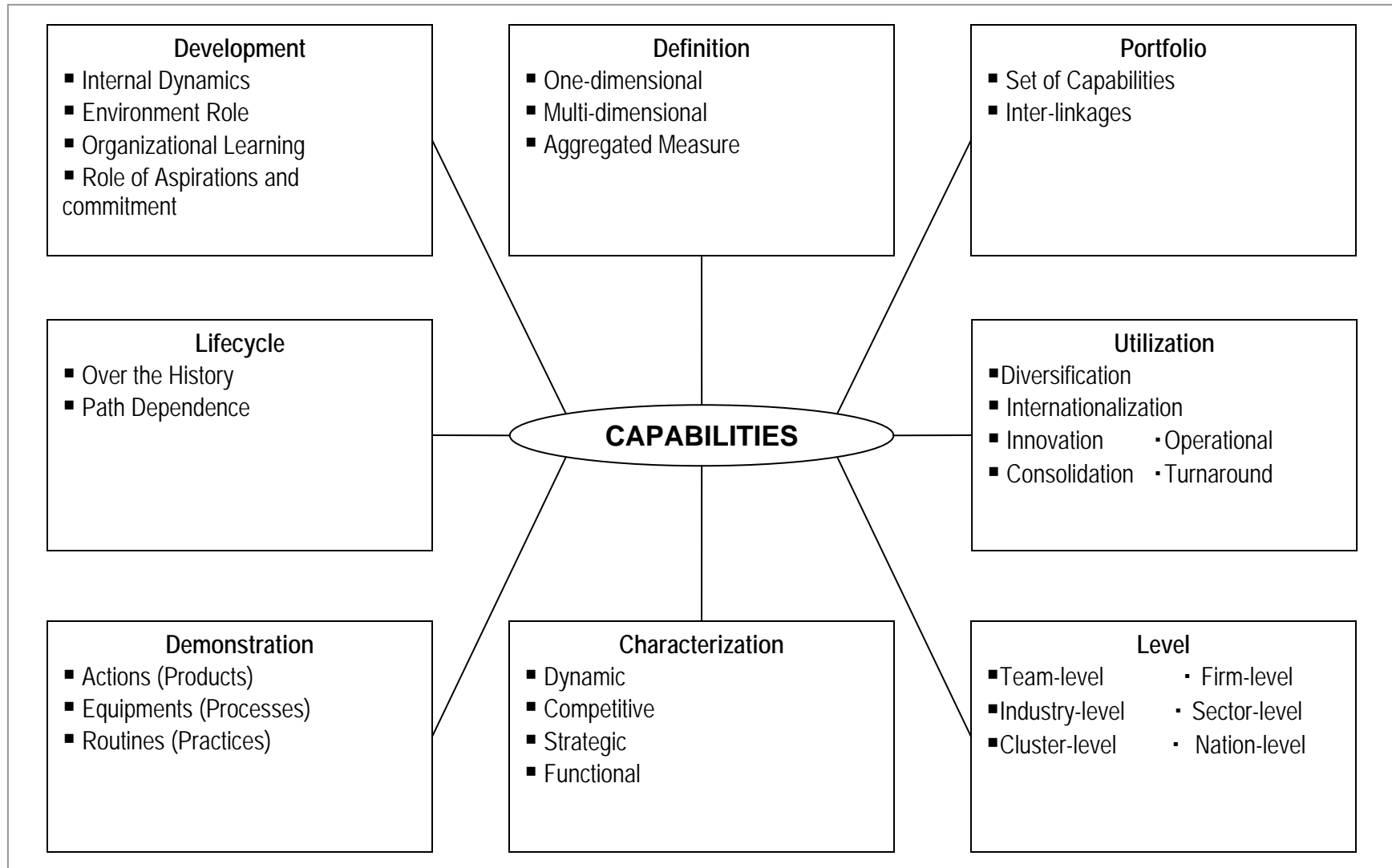
3. Conclusion

The eight dimensions provide an interesting pattern and structure to the literature on capabilities. Studies in this field can be segregated on several other ways, but a close look at the eight dimensions will tell that each of these eight dimensions can be divided into static part and temporal part. While capabilities were earlier looked upon in a static manner, the changing environment triggered the need for dynamic nature of capabilities, thus furthering each of these dimensions towards including a temporal part. This particular characteristic of each dimension indicates that while reviewing any study vis-à-vis this framework, it should be segregated further into a static or a temporal study on capabilities.

Each of these dimensions are also linked with each other. Most of the studies have not covered just one of these stated dimensions, but address multiple issues that fall under different dimensions. For example, Teece et al (1997) posited dynamic capabilities as a portfolio of capabilities, to cope with the rapidly changing environment, demonstrated in processes, positions and paths, thus covering decoration, portfolio, utilization and demonstration. The studies focusing on capabilities either reinforces the understanding within dimensions or extends the understanding by creating new concepts within the

dimensions or establishing new linkages between dimensions. This mélange of studies often lures us to look at them from RBV, but if we apply this framework for positioning the studies, we can derive more useful meaning out of the contributions by understanding which dimensions are being strengthened and which ones are being extended.

APPENDIX



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