



## A Unified Theory of Capability Building: Need and Response

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## A Unified Theory of Capability Building: Need and Response

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### Abstract

*Strategy literature is replete with isolated contributions to the jigsaw puzzle of building capabilities by firms. The isolation is primarily caused by the way resource-based view and capability literature has developed over time. There is a need to overcome this isolation and build a unified theory of capability building process which takes into account both internal as well as external perspective and explains it for new as well as established firms, successful as well as not so successful firms. We respond to this need with a unified theory that explains deliberate and emergent process of capability building by recognizing the independent and interdependent contributions of the firm and its external environment. The capability building process is characterized as a three phased process with different starting points for different categories of firms. The phases in capability building – Participative, Competitive, and Leadership – reflect the strategic intent of the firm and its position vis-à-vis the environment. Each phase in the process witnesses capability building through an interaction between internal firm dynamics and corresponding external environmental forces. The theory encompasses the evolution of capabilities not only by exploiting the opportunities but also by overcoming the external constraints and the rigidities inherent in the capability. It incorporates context, processes, antecedents and consequences within each stage and across different stages. It answers important questions like why firms are different in terms of their capability building approach. The theory is unique as it unearths the unexplored process of capability building with a holistic and temporal perspective.*

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# A Unified Theory of Capability Building: Need and Response

## 1. Introduction

While strategy scholars acknowledge the need to address question of how to develop capabilities, the efforts in this direction so far have been sparse, in silos and within boundaries of the resource-based view (RBV). Despite a strong need and desire, we are nowhere close to having a unified theory of capability building. This stark reality throws up an interesting question that despite RBV being now more than 20 years old, why don't we still have a unified theory of capability building? The answer lies in history of development of RBV. On the foundations laid by Penrose (1959), RBV was reborn through the efforts of numerous authors (Wernerfelt 1984; Barney, 1986; Barney, 1991). Since, RBV emerged as an alternative explanation for competitive advantage; the issue had to be first settled at a conceptual level for wider acceptability. And therefore, the efforts of strategy scholars for the next couple of years went into establishing the contours of RBV, viz. the nature of resources and capabilities for sustainable competitive advantage, distinction between resources and capabilities and so on. This was probably necessary to provide a robust foundation and wider credibility to empirical studies that subsequently explored the linkages between resources and capabilities, and performance.

In 2000, Strategic Management Journal dedicated a special issue on the evolution of firm capabilities. Several Authors (Rosenbloom, 2000; Raff, 2000; Winter, 2000) in this special issue made significant contributions towards unravelling the building blocks of capability building process. While subsequent studies in the area (Montealegre, 2002;

Helfat and Petraf, 2003; Keil, 2004) enhanced our understanding of the process, a consensus on the broad contours of capability process did not emerge. And unless there is some consensus on the elements of conceptual framework of the capability building process, any empirical work in this field would not have wider acceptability. This paper makes an attempt to consolidate, reinterpret, and extend prior work on capability building process and suggests a unified theory of capability building.

Although this paper broadly addresses the quintessential issue of how capabilities are built, we depart from earlier work by looking at the interactions between nature of firm, nature of capability, internal firm dynamics and external environment over a period of time. Our focus is on capability building – whether deliberate, emergent or evolutionary – and all associated concepts. For example we relate and examine the dynamic idiosyncratic context of capability building in strategy literature with the classical RBV emphasis on resources or capabilities being valuable, rare, inimitable and non-substitutable (VRIN).

The structure of the paper is as follows. First, we present a review of studies that have primarily focused on the issue of capability building. The objective is to find out focus, methodology, and range of issues covered by these studies and the missing dimensions. We integrate these studies and provide for the missing links. Next, we review those studies that have looked at issues similar to the notion of building capability such as organizational development, product lifecycle and team development. The objective is to explore linkages beyond RBV and find out some more missing coordinates in the extant literature on capability building. Next, we define and describe the concepts used by us in

the paper. In the subsequent section, based on our findings, we present the unified theory of capability building. In the end, we conclude with future research directions in the field.

## **2. Missing links in the literature on capability building**

In capability building literature, quite a large number of contributions have focussed on antecedents of capability building such as investments (Chandler, 1990), complimentary assets (Teece, 1986; Dosi, 1982), prior experience (Klepper and Simons, 2000) and dynamic capability (DC) (Teece, Pisano & Shuen, 1997). The process has also been defined in terms of its characteristics such as path dependence (Levitt and March, 1988) and core rigidities (Leonard-Barton, 1992). The concepts of absorptive capacity (Cohen and Levinthal, 1990) and acquisitions (Karim and Mitchell, 2000) bring in the external dimension to the capability building process. These studies while important in themselves do not provide unified insights on how capabilities are built except for the fact that there is a consensus on macro aspects of capability building in terms of it being a slow, incremental and time consuming process. The few empirical attempts (Montealegre, 2002; Keil, 2004) to trace this process over a period of time have proposed a staged model for capability building process. Support for this hypothesis has also come from the conceptual work on capability lifecycles (Helfat & Petraf, 2003). However, following questions revolving around the trajectory, time taken, and success in building capability still remain unanswered. What is the trajectory (shape) of capability building? When does transition occur from one stage to the other and if so how does it happen. Is simple staged process or the capability life cycle model generic enough to encompass all situations of capability building? For example, does a staged model explain building of a single capability over time or disruptions in capability building process? Is capability building a process of external accumulation of capabilities or is it a process of

internal accumulation or both? Finally we have examples of firms being successful and unsuccessful in their attempts to build capability irrespective of the fact that they were new firms or established firms. Does this variation in outcome come from variation in processes across three stages? In the extant models, capability building starts only from state where firms have no capabilities. While this may be true for new firms the same cannot be said conclusively for established firms.

### **3. Concepts used in the paper**

Since multiple definitions exist for concepts used in the capability literature, we clarify the meaning and understanding of concepts used by us in our framework.

#### **3.1. Capability**

Capabilities have been defined in innumerable ways in the strategy literature viz. as capacity to deploy resources (Amit and Schoemaker, 1993); as a high level organizational routine (Winter, 2003) or as ability to sustain coordinated development of assets (Sanchez and Heene, 1997). However for this paper, we adopt Winter's (2000) conceptualization of capabilities as being embodiment of organizational processes and manifested in the organization's ability to accomplish some specific desired results. In contrast to the emphasis laid by the RBV literature on inherent difficulties in building capability due to causal ambiguity and social complexity (Barney, 1991), we argue that all capabilities are developable. Since it is possible for all firms to develop capability, the variation in capabilities across firms is only in the extent of their possession. This means that at any moment of time, all firms would occupy positions along the 0-10 continuum, wherein the notional condition of 0 represents a firm with no capability and the notional condition of 10 represents a firm with leadership position in that specific capability. While capabilities can be infinitely improved, the assumption is that the figure of 10 represents the highest

degree of excellence or perfection which can be attained now. Essentially such a firm would be the one against which other firms would benchmark their capability. For example: Wal-Mart for logistics; GE for capability to integrate acquisitions; Sony for innovations and so on.

### 3.2. Cognition as anchor point of capability building behaviour

Role of managers in organizational decision making has been highlighted by several authors beginning with Simon (1955). It is now well established in management literature that organizational decisions are taken by the top management or by the dominant coalition. This is true for any type of firm, established or new. For this paper, we consider firm as being directed by collective cognitive representations of managers driven by past historical experience (Kiesler and Sproull, 1982) or their own aspirations. Furthermore, managers enact their environment (Weick, 1979) which brings into prominence the role of strategic intent (Prahalad and Hamel, 1989) and of existing competencies as base for launching strategic initiatives.

### 3.3. Typology of firms from a capability building perspective

In the event of competence destroying or competence enhancing discontinuous changes (Tushman and Anderson, 1986), firms need to build new capabilities or reconfigure existing capabilities. Since firms differ in their responses to environment change (new entrants and incumbents), we present a typology of firms and capabilities as shown in Figures 1a and 1b.

**Figure-1a** Types of Firm

Types of firms	
1.	New
2.	Affiliated
3.	Established

**Figure-1b** Types of Capabilities

Types of Capabilities	
1.	New (new to the world or new to the firm)
2.	Reconfigured (evolved, transformed, substituted)

We define new firms as the ones that are new, not affiliated to any group or alliance, and build capabilities by using mostly internal resources. Affiliated firms are the new firms that are a part of some group or alliance, and have access to capabilities of the group or alliance. Established firms are those which have been active in the past and pose as a competitor to other firms. Such firms would already have some stock of required resources and capabilities.

For capabilities, we adopt a broad categorization of new and reconfigured. Either the capability is new to the world or new to the firm, or it is some reconfigured version through evolution, transformation or substitution.

#### **4. Unified theory of Capability Building**

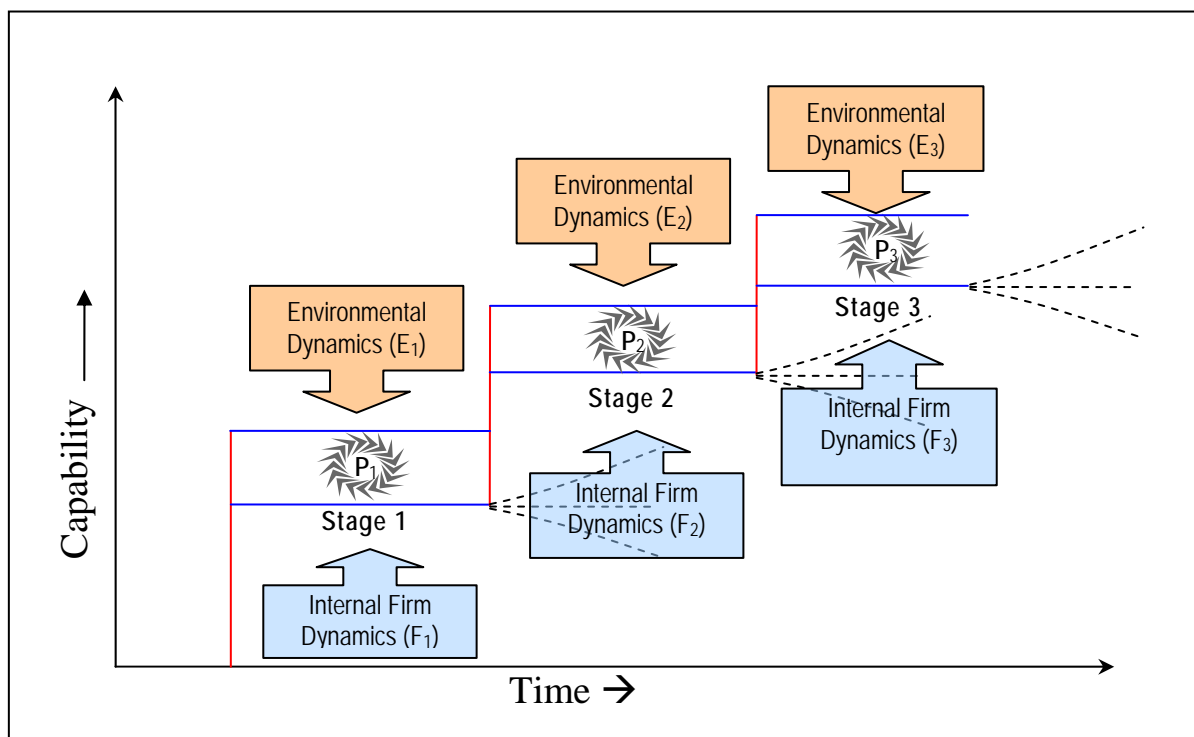
In the preceding section, we presented typologies for firms and capabilities. We now juxtapose it with three types of strategic behaviour exhibited by firms when faced with the task of building capabilities. We call these three behaviours as intention to participate, intention to compete and intention to lead. In our theoretical framework, the three types of capability building behavior represent three stages within the capability building process. In *Participative Stage* (stage 1) firms build capabilities with intention to merely participate in the market. In *Competitive Stage* (stage 2) firms build capabilities sufficient enough to compete in the market. In *Leadership Stage* (stage 3), firms develop capabilities which give them a benchmark or iconic status for a specific capability or a portfolio of capabilities.

In each stage, the firm's efforts to build capabilities either receive support or encounter resistance from internal firm dynamics (F1, F2 & F3) as well as external environmental factors (E1, E2 & E3). The interactions (P1, P2 & P3) between internal firm dynamics



and environmental factors decide the pace and the extent of movement along the path of capability building. A salient feature of our model is the existence of barriers at the end of each stage. To surmount these barriers and to jump on to next stage, firms require major support at these points. This support can come either from external environment or from internal firm factors, some of which might be dynamic capabilities built over time or acquired externally.

**Figure-2 Capability Building Process**



As seen in the figure, the participative stage will have Forces F<sub>1</sub>, E<sub>1</sub> and interaction P<sub>1</sub>. Since the firm is relatively at an early stage, it can be assumed that the resources available at its disposal will be less. Due to this, the mechanisms in the participative stage will show a dominant trait of congregation, where the firm's F<sub>1</sub> will be geared more towards

scanning and exploring the environment to find useful resources and deploy them as and when required. Furthermore, the firm's environment will have higher uncertainty in this stage and therefore the environment would postpone investing into developing its own competencies and would rely on congregation of external capabilities. Also as the relationship between the firm and the environment in this stage is tentative, the response to environment to act as enabling partner would depend on the firm's ability to educate the environment. If the response turns out to be supportive, E1 might provide that extra stimuli to the firm which would catapult it into the next competitive stage. In the competitive stage, the firm would have either developed few basic competencies to compete, or it would start investing in the cultivation of competencies within the firm. In this stage, the F2 will be balanced between exploring the environment and exploiting the internally developed competencies during first stage. In the competitive stage, the E2 will be more reactive based on the stimuli from F2. F2 will also be governed by the intent of the firm and how quickly does the firm aspire to move into the leadership stage. In the leadership stage, F3 will be geared towards exploiting all the internally cultivated competencies and at the same time, it will also provide a right direction based on the environment exploration. E2 in the leadership stage will be highly receptive and passive, giving way to F3, which will be dominant in designing the Processes (P3) in the leadership stage. Through out the journey, the firm's prime-pillar, on which its business philosophy resides, will determine the speed, direction, and sustainability of the capability building process. Any process and a firm triggered force that is not anchored in or aligned with the prime-pillar will render the process ineffective for that period.

Our unified theory of capability building extends earlier model of capability life cycle (CLC) proposed by Helfat and Petraf (2003) in many ways. It captures accumulation of capabilities (single or portfolio) by a firm over time across different stages interspersed

by barriers after each stage. It also shows that since intentions for building capabilities are different for different firms; the entry point of any firm along the capability building curve depends on the category it belongs to as shown in table 1.

**Table 1: Different Stages at which Firms start**

<b>Firm</b> <b>Capability</b>	<b>New</b>	<b>New-affiliated</b>	<b>Established</b>
<b>New</b>	Participative	Participative or Competitive	Competitive
<b>Reconfigured</b>	Competitive	Competitive or Leadership	Leadership

Within each stage, the firm dynamics and environment assume different forms and based on the roles being played by the firm (learner or an actor) and environment (cooperative or competitive), the interactions take place. As shown in the example in table-2, the firm starts as a learner in the cooperative environment and gradually starts expressing capabilities through action. Subsequently when the environment turns competitive, it presents a new set of interaction dynamics and a new set of firm responses.

**Table-2 Different Roles played within each stage**

<b>Role of Environment</b> <b>Role of Firm</b>	<b>Cooperative</b>	<b>Competitive</b>
<b>Learner</b>		
<b>Actor</b>	↓	→

A new firm engaged in the task of building new capabilities has to start from the first stage, whereas, from the perspective of capabilities required, the starting point for a reconfigured capability would be the second stage for the same firm. Our framework therefore answers the basic question of heterogeneity between firms. Another important question which pertains to successful and unsuccessful attempts at capability building also gets explained by transition barriers between stages and the possibility of branching /decays at each stage. Finally, our model extends beyond RBV by suggesting that the VRIN capabilities get built only in the leadership stage.

## **5. Newness of the theory**

DC as conceptualized by Teece et al (1997) is a capability by itself and corresponds to positions, processes and paths by which firm managers integrate, build, and reconfigure internal and external competencies to address rapidly changing environment. Thus, their conceptualization was that of a presence of capabilities, but does not explain their development over time. Eisenhardt and Martin (2000) extended the concept of dynamic capabilities as consisting of specific strategic and organizational processes embedded in firms which vary in accordance with changes in the external environment. In this conceptualization, environment is enacted by managers. So, one does not know which DC would get invoked when. Further, research so far has explained DC as a condition. Firms having it are able to enhance existing resource configurations or build new resource configurations and hence can be at best explained as routines to learn routines. But when firm develops participative capabilities these might or might not be developed. This presents us with a situation where RBV breaks down in explaining the situation, and hence in such situations we attempt to look at the capability building process from an organizational learning perspective. Eisenhardt and Martin (2000) identify particular

processes as dynamic capabilities such as product development or alliance formation. If we take this as DC conceptualization, our model can also be extended to understand the nitty-gritty of how dynamic capabilities are built over time. We would also place this work as distinct from the study by Ethiraj, Kale, Krishnan and Singh (2005) where they identified the capabilities – project management & client specific – and proved that the development of capabilities leads to performance. Their study did not delve into the process of how these capabilities get built and what are the mechanisms at every stage of development. However, we would place our work as a significant extension of the concept of capability lifecycles put forth by Helfat and Peteraf (2003), wherein they present a trajectory based model for development of capabilities. Although our model also talks about capability building, we attempt to present a more comprehensive explanation for the accumulation of a portfolio of capabilities along with the underlying mechanisms in each stage of development.

## **6. Conclusion**

The foundation of the unified theory of capability building rests on the conceptualization of the firm resources as defined under RBV. Though it is an important step towards ascertaining a path to the evolution of capabilities, this paper explores into the phenomenon only conceptually. Empirical evidence from relevant firms will go a long way in strengthening the proposed theory and advancing the research from RBV bases studies towards an evolutionary perspective. In the end, we would like to caution the empiricists in this field that the conceptualization of the processes, identification and assessment of capabilities would be a crucial starting point while attempting to apply this theory.

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