

# EXECUTION MATTERS? SEARCHING THE RESEARCH FRAMEWORK FOR GROWTH OF YOUNG HIGH-TECHNOLOGY FIRMS

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## **Abstract**

The aim of this paper is to describe the multilevel framework for analyzing determinants of growth. The paper defines the framework of strategy logic of rapid growth between initialisation of a company and the moment when it has reached a state when it is attractive to the formal venture capital financing industry.

It is to be noted that this paper reports work in progress.

## **Keywords**

Strategy, Strategic management, Growth, Entrepreneurship, Life cycle

## **INTRODUCTION**

### **Growth of young high-technology firms**

Are entrepreneurs sometimes just lucky or have they really skills to lead young companies to success? Scholars have argued what are the keys to the success of young companies or noted that there is no commonly agreed upon framework or theory for company growth. Thus, frameworks attempting to explain company growth do exist, but they are not compatible or consistent with each other. They do not agree on what variables are related to company growth. Normally, descriptive models for company growth show how organizations, resource requirements, and management practices evolve companies grow. In general, the models describe company development as a predetermined sequential process from one period to another.

At the start-up stage founders' skills and abilities were crucial to company growth as well as financial and business resources. After the three first year of operation, there was no difference between the companies started with divergent amounts of initial capital (Doutriaux 1992). Later stages most firms began to loose their entrepreneurial character, such as fast response to problems, simplicity of control, and ability to change focus and resources. Many have claimed, though, that initial strategic emphases alone are insufficient in explaining later company growth (Moore 1976, Maidique & Hayes 1986) and strategic planning and personal resources become increasingly critical (Churchill 1983, Churchill & Lewis 1983). In addition, there was no relationship between company performance and financial support received at the later stages of company development (Utterback et al. 1983).

## CONCEPTUAL FOUNDATIONS

### Strategy Concepts

The actual strategy concept can be approached and interpreted from several points of view. It can be seen as a plan, a ploy, a pattern, a position or a perspective (Mintzberg, 1987). The most dominating viewpoint is to see strategy as a plan and strategy making as a process of planning (Näsi, 1996). The literature related to this approach normally deals with corporate, business and functional levels (Hofer & Schendel, 1978) and nowadays also with network level. Today there are numerous schools of thought to be found of which for example Mintzberg et al (1998) ten (see also e.g. Näsi, 1987, Karlöf, 1987).

Chandler (1962) considered strategy as "the determination of basic long-term goals and the objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals". For Näsi (1991, 1996), strategy meant "the plot of action of the firm", whereas Gilbert et al (1988) considered it to be "logic of action of the firm". Several other definitions are based on similar elements (e.g. Johnson & Scholes, 1989, Karlöf, 1987, Näsi & Aunola, 2002a, 2002b). In sum, the plot or the logic of action, the long-term goals of the firm, competitive advantage and the defined time period which could be regarded as the basic elements of strategy. The plot and the logic of action view strategy as a direction or a vision, core competence, cost leadership, a differentiation, an activity system etc. (see e.g. Porter 1980, 1985, 1996, Mintzberg et al, 1998, Näsi, 1996, Hamel & Prahalad, 1994). Another basic element, the competitive advantage, is relative to competitors. As a unique competitive advantage is not sustainable, strategy also tends to vary in time and in different context. Competitive advantage (e.g. valuable position) will attract imitation by incumbents (Porter, 1996). Strategy in this paper means *the plot or the logic of action of the firm for carrying out long-term goals and for creating competitive advantage*.

The framework of strategy concepts consists of norm, humane and logic concepts (Fig. 1). The logic concept is defined and being connected with other theories of cognitive thinking, a strategist's work, game mastery, business history and core competence (Näsi 1999).

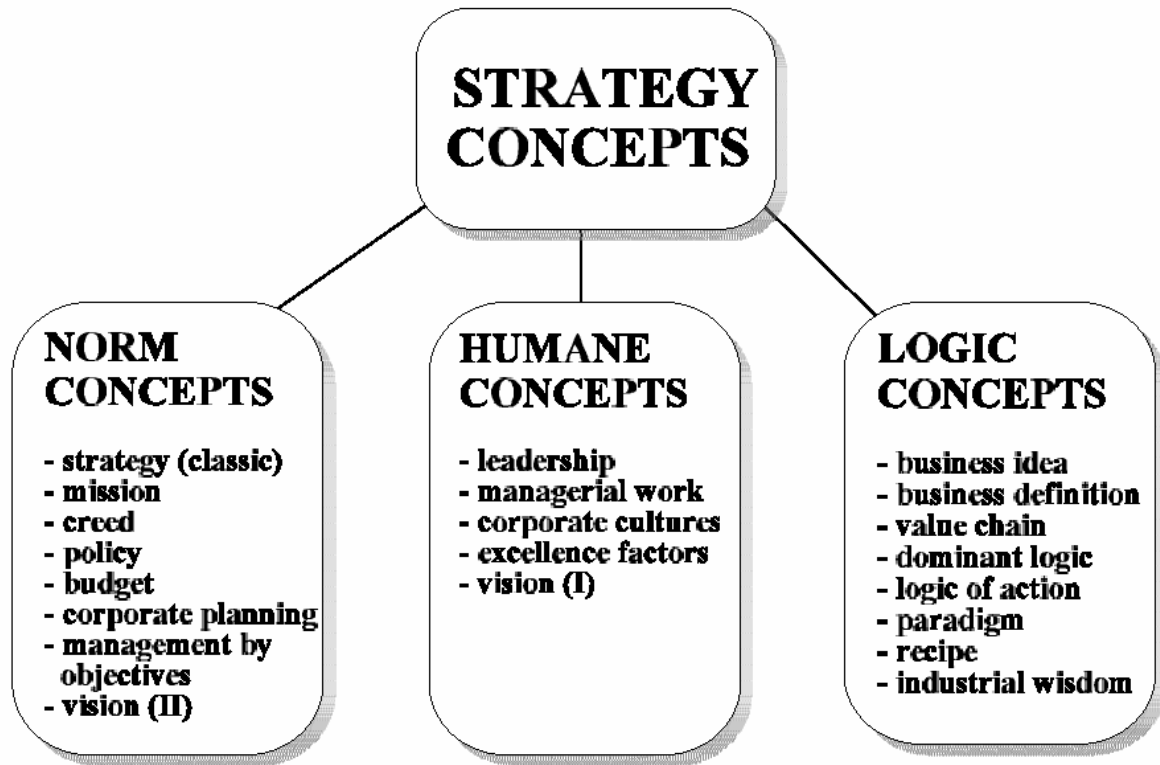


Figure 1. Three types of strategy concepts (Näsi 1999)

“Strategy logic is subjective logic representing the thinking of key person(s) in the firm.” (Näsi et al. 1996). The logic concepts are recent ideas exposing the core of strategy. These concepts are called logic concepts because their idea is to expose the rationale of action in firm (Näsi 1999). Thus, cognitive maps, schemas, paradigm, the Dominant Logic or the Logics of Actions are relative concepts, of which we can be understand nowadays as logic concepts of the strategy.

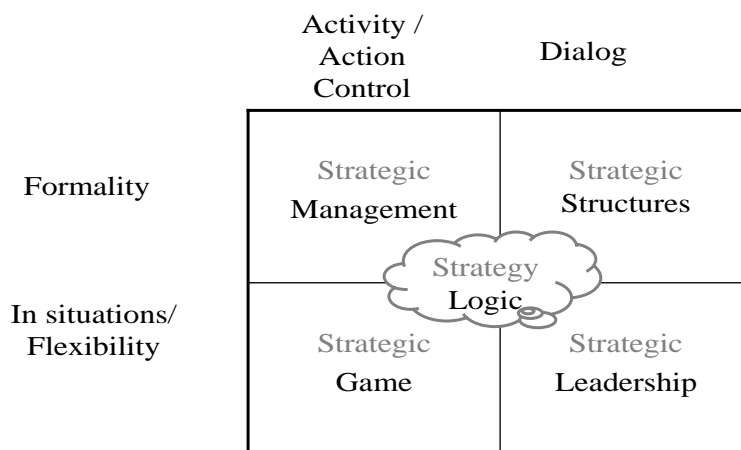


Figure 2. Framework of strategic thinking (Näsi 2002)

Strategic management, strategic structures, strategic leadership, and strategic game are the subfields of strategic thinking, and strategy logic has overlapping parts with previous four

categories, and on the other hand, it could be seen as a category of its own. This paper focused on to the field of strategy logic. The framework by Näsi (2002) is presented in figure 2.

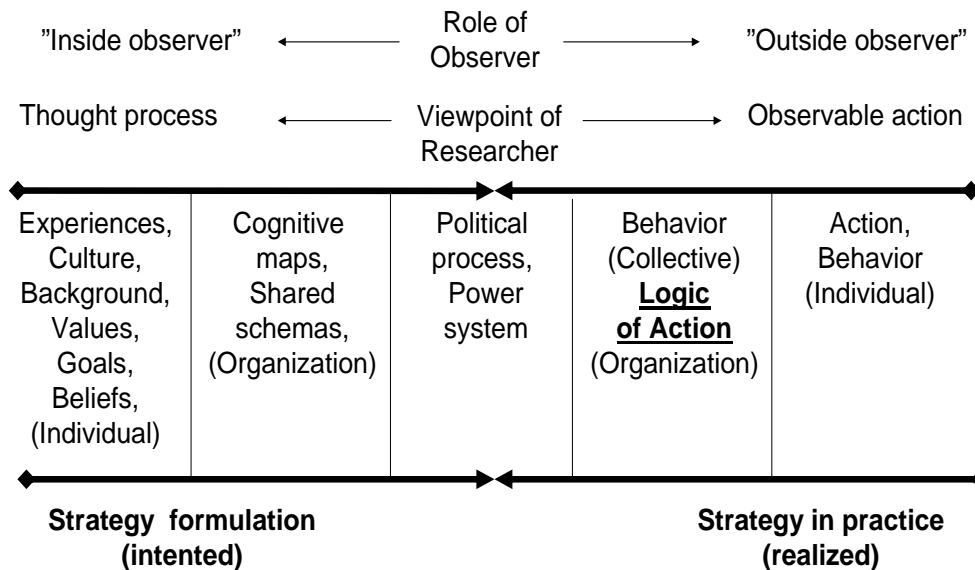


Figure 3. Logic of action based on shared schemas, culture and internal power system.

Originally, Thomas Kuhn defines the paradigm in 1962 in his book *The Structure of Scientific Revolutions*. In strategic management theory the paradigm is defined by Johnson (1987) as "a set of beliefs held relatively commonly throughout the organization, taken for granted, but discernible in the stories and explanations of the managers", and durable and powerful, but tacit assumptions about the business reinforced by success of the organization.

In the article Prahalad and Bettis (1986) defined the dominant logic "as the way in which managers [in the firm] conceptualize the business and make critical resource allocations decisions." Furthermore, they noted that it was stored via shared schemas, cognitive maps or mindsets and was determined by the managers' previous experiences. The dominant logic forms a sort of information filter that filtered relevant data to aid strategy development. The filtered data are then integrated into the strategy, systems, values, expectations, and reinforced behavior of the organization (Bettis & Prahalad 1995).

As can be seen the definitions of dominant logic and paradigm are quite similar concepts. Both are based more or less on the cognitive psychology - how managers perceive the contextual environment and how they response the environmental changes. In comparison, Karpik's (1972, 1978) logics of action look the same problem more from the outside observer viewpoint. Although, Karpik mentioned that behavior based on organization's culture, values and attitudes, his focus was on the whole range of observable actions.

Karpik pointed out that when analyzing firm's strategies is needed also to study the groups, which create them. In addition, the Logics of Action means first of all that it should compare all actions, which influence to organization. Karpik mentioned also that in the large organization could have several logics of action. The logics of action forms hierarchy, but it is

hard to identify. Furthermore, logics of action are also relative to each other, and only whole variety of behaviour makes it possible to identify them (Karpik, 1972, 1978).

In the concept of logics of action the units of analyses are both powerful individuals as well groups. Individuals and groups form the organization’s culture, attitudes and behavior. Altogether they define also organization’s principles of action or in other words Logics of Action, of which can be identified by outside observer by analyze the whole range of behavior of organization.

The behavior is result from internal political struggles that defines the dominant logics of action in the firm. The competitive coalitions and powerful individuals have own preferences and the winning coalition or individual defines the dominant Logics of Action in the firm (Karpik 1978, 1981). The realized strategy (objective) could be interpreted as logical outcome from the strategy formulation (strategy) and the dominant orientation of the firm (logics of action). The concept of logics of action can be seen also as a normative theory.

**Stages of growth and strategic management**

Dozens of general growth models have been presented, for example, by Greiner (1972), Scott & Bruce (1987), Churchill & Lewis (1983) and The Kazanjian model of growth of technology-based companies (Kazanjian 1984, Kazanjian & Drazin, 1990). Notable in Kazanjian model is the pre start-up phase (also often called ‘a seed phase’) that is missing in most of the other general growth models.

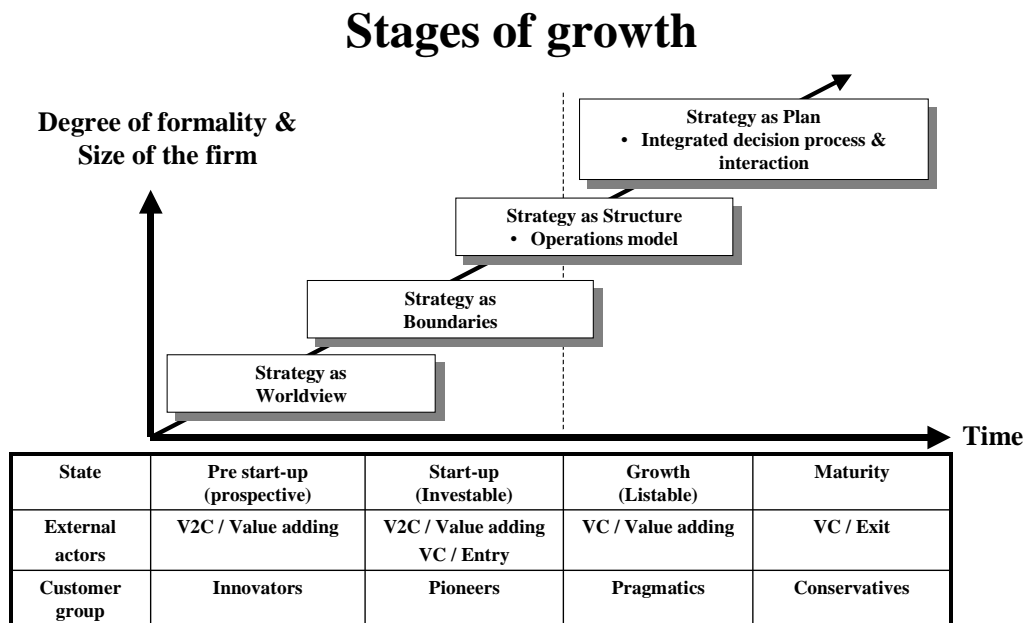


Figure 4 Stages of growth from strategy viewpoint (Ala-Mutka, 2002)

Four states of growth from a strategic perspective are described in Figure 4. The spheres of V2C players and Venture Capitalists together with customer groups of the technology adoption life cycle have also been added. Rasila et al (2002) define venture-to-capital players (‘V2C players’) as follows: “V2C operative is the actor, a legal entity or natural person

performing V2C activities in V2C space, i.e. the Venture-to-Capital operating area. The goal for V2C operative is to find companies, which can be defined as Prospective, and by V2C operations assist them in becoming “Investable”, i.e. fit for receiving an investment for a VC company.”

The first stage of the growth is the pre start-up that could be regarded as the time before the actual firm is founded or the time when the company invents new products and develops them through customer projects. For small firms, strategy in this state means, first of all, a strategic worldview (Näsi & Aunola, 2002a, 2002b). In the beginning they did not even have a clear image of the products, only ideas and assumptions about the benefits of new technology. The state described here could be called ‘strategy as worldview’. The company’s customers, who at this point are innovators and early adopters, should also share this ‘worldview’ (Ala-Mutka, 2002).

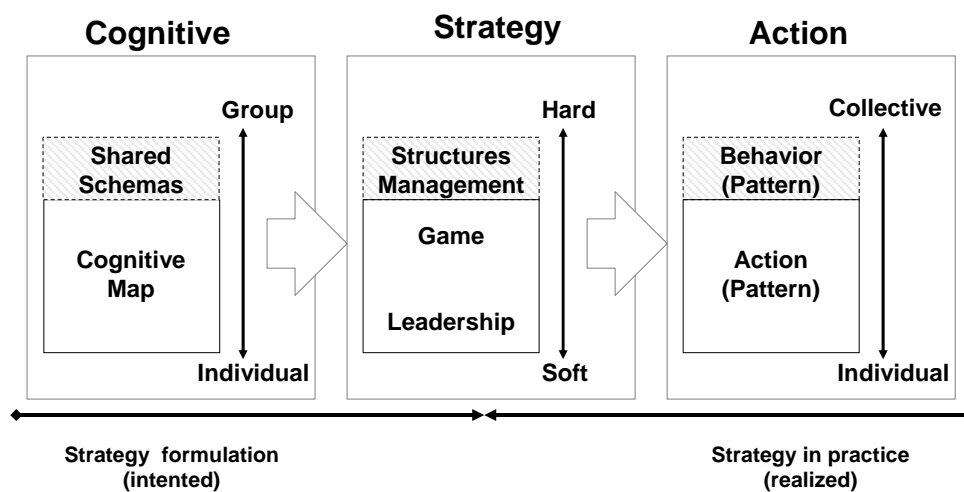


Figure 5. Elements of strategy logic (start-up)

Next, in the start-up state, the firm has to start making decisions. At this point the pure ‘worldview’ does not work any more. It cannot be applied to everything as the resources of the entrepreneurial firm are scarce. A new venture does not normally have capital or even management resources to diversify at early stages of the development. The new venture needs to concentrate on something niche or on a somehow limited market segment. One of the most useful marketing constructs to become integrated into high-technology marketing is the concept of a ‘whole product’ (Levitt, 1986). The concept identifies four different perceptions of a product: a generic product, an expected product, an augmented product and a potential product. A generic product is what is “shipped in the box”. Other perceptions could include for example a variety of products in information technology such as cables, training, support, consulting, additional software, additional hardware, system integration, installation and debugging. In reality, this means e.g. up-stream and down-stream integration in value chain, acquisitions, partnerships, alliances etc. The new venture starts setting boundaries around the business idea (Näsi & Aunola, 2002a, 2002b). At the same time the total risk level gets bigger. The company has to take into account not only technological risks but also financial risks and risks in partnerships and alliances. In the terms of strategy, this state can be called ‘strategy as boundaries’ (Ala-Mutka, 2002).

The first two states emerge during the ‘early market’, but the whole game will change in the third state (‘the growth’). The new venture’s products and services around the generic products (‘the whole product’) are almost ready or partly outsourced to partners. This state includes “crossing the chasm”. Winning of the early majority business is then the key to any substantial profits and growth. Early Majority wants to see well-established references before investing substantially. In comparison to the innovators, the early majority wants to buy a productivity improvement for existing operations. They look for minimizing the discontinuity with the old ways (Moore, 1998). Strategy starts thus to become more structured and may even form an operations model. This also means that strategy becomes more sales and marketing oriented. In this state, the new venture needs to make decisions about sales channels and also to take into account possible channel conflicts. This state is called ‘strategy as structure’ (Ala-Mutka, 2002).

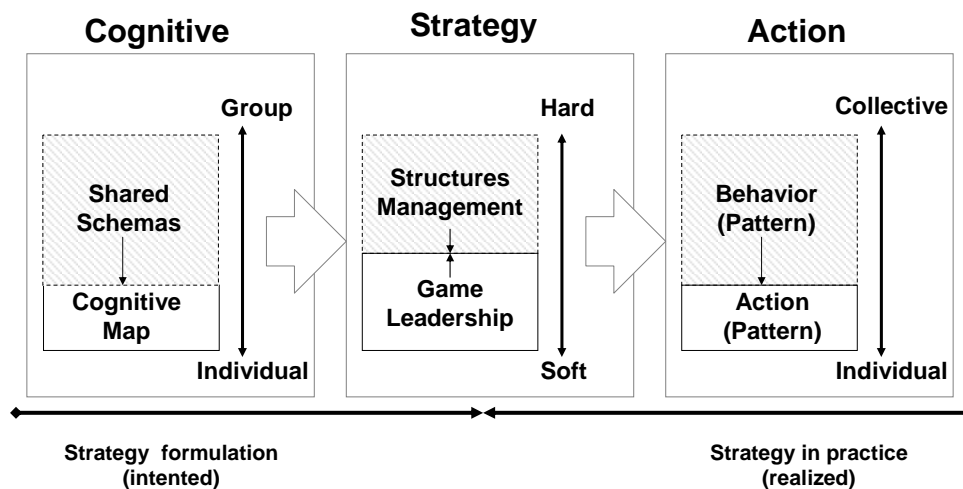


Figure 6. Elements of strategy logic (growth)

After a short, but a rapid growth period, the new venture is not actually new or small any more. More people are involved in strategy making that forces the structure to become more formal and standardizes the communication between people and units. The last state of the new venture can be called ‘strategy as plan’ (Ala-Mutka, 2002).

### External actors in and around entrepreneurial firms: Venture-to-capital

Rasila et al (2002) define venture-to-capital players (later ‘V2C players’) as follows: “V2C operative is the actor, a legal entity or natural person performing V2C activities in V2C space, i.e. the Venture-to-Capital operating area. The goal for V2C operative is to find companies, which can be defined as Prospective, and by V2C operations assist them in becoming “Investable”, i.e. fit for receiving an investment for a VC company.” V2C push new ventures into the direction of formal venture capital and faster growth rate. Most of these players are not interested in using formal power over the firm at the boardroom. In the pre start-up state the board is normally internal including only the founders. In fact, working with the founders also means influence over the company and its strategic decisions. These and other V2C players operate between the pre start-up state and the formal venture capital industry (Ala-Mutka, 2002).

V2C players can be categorized as follows: business angels, incubators, advisers, and large corporations (Seppä & Näsi, 2001, Seppä, 2002). Power over the venture and its strategic decisions varies by each player and is based on agreement or ownership. Normally, business angels personally participate as owners in underlying ventures, but incubators seldom have this kind of incentive. Advisers focus mostly on their own short-term gains and profitability (Seppä & Näsi, 2001, Seppä, 2002). The V2C's products are most of all knowledge and contacts. At later stages V2C is able to convert to its work to a share of the ownership. Usually, the share of the ownership is relative small, which way V2C-players are able to avoid conflicts with their customers and partners - formal or informal venture capitalists (Ala-Mutka, 2002).

### External actors in and around entrepreneurial firms: Venture capitalists

A venture capital (later 'VC') firm serves the role of a financial intermediary in the market and the survival rates of the new venture capital-backed firms are, however, higher than those without (70-80% vs. 10-20%; Timmons & Bygrave 1986). In fact, many venture-backed entrepreneurial firms are neither clear success nor failures – they are so-called 'living dead' cases. The highest-ranking cause for such 'living dead' situations is management weakness. The replacement of the management, an action often initiated by venture capitalists, positively impacts performance in these firms (Ruhnka et al, 1992). This is also consistent with the general propensity toward monitoring and control demonstrated by venture capitalists. Venture capitalists do not only commit capital, but also participate directly in the governance of their portfolio companies, vis-à-vis the board of directors. Venture capitalists commonly structure their contracts so that they have the right to appoint and remove members of the management team (Gompers & Lerner, 1996). Furthermore, the high agency and business risks are associated with the employment by venture capitalists of more comprehensive governance structures for monitoring and control (Daily et al, 2002).

## CONCLUSIONS

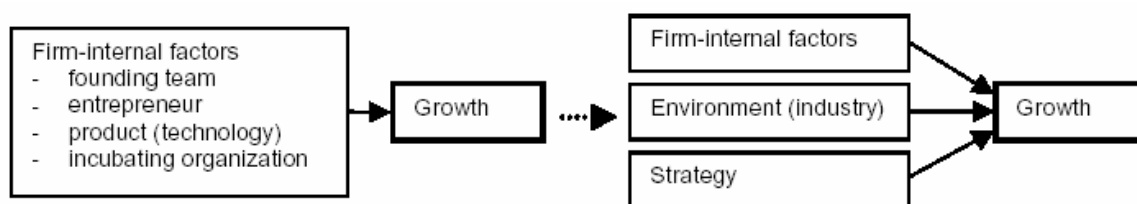


Figure 7. Sandberg and Hofer's (1987) multi-level framework

Sandberg and Hofer's (1987) study was the opening to introduce a multi-level framework for analyzing determinants of growth. Most previous studies had focused on firm-internal factors. The other widely used perspective is resource dependence research paradigm.

## Multilevel framework

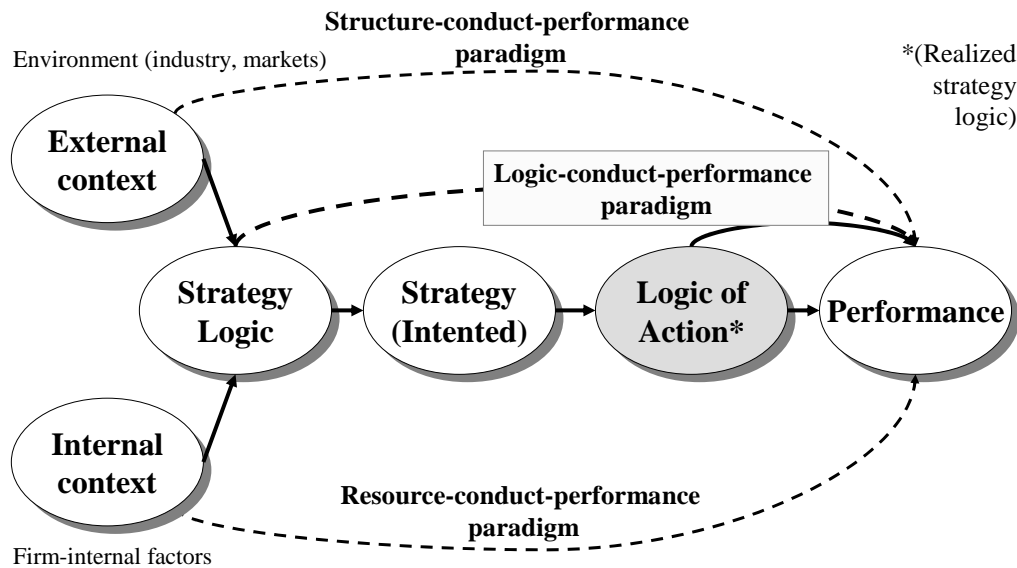


Figure 8. Multilevel framework for analyzing determinants of growth (performance).

The multilevel framework for analyzing determinants of growth is presented in figure 8. In sum, logic of action is the concept, which looks firm's behavior from the perspective of the outside observer ("realized strategy"). Logic of action based on intended strategy and strategy logic of the firm. Thus, three different kind of research paradigm can be identified. The newest member is now called "logic-conduct-performance paradigm". Strategy logic focused on factors such as strategic content, strategy process, structures, leadership, and strategic game.

Variables of external context are in particular industry, markets, economic situation and competition. Firm-internal factors are size of organization, culture, values, stage of life cycle, ownership structure, etc. These factors form the strategy logic of the new venture, which is subjective logic representing the thinking of top management, founders, V2C and other external owners in the venture. Firm's strategy based on these core beliefs and background of the key persons, but the intended strategy is not the realized one. Logic of action describes the real strategy of the firm and therefore influence directly to the performance of firm.

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