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# **VIRTUAL FLEXIBILITY: A REEXAMINATION OF THE CONCEPT OF ORGANIZATIONAL SLACK**

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## **ABSTRACT**

This article reviews changes taking place in the business environment and in the field of strategic management, contrasting the traditional industrial organizational economics paradigm with the new hypercompetitive or Austrian paradigm. It then demonstrates the implications of this paradigm shift in a detailed examination of the concept of organizational slack, highlighting new forms, applications and value for slack in the new hypercompetitive environment.

## **I. INTRODUCTION**

It almost goes without saying that the world of business is no longer what it once was. Technology, globalization, political and social forces have drastically changed the business environment. As D'Aveni notes, "Business has entered an age of new realities" (D'aveni 1994, p. xiii). These "new realities" with their focus on flexibility and speed, have impacted every area of management thought.

If the popular management press is to be believed, flexibility and adaptation will be the hallmarks not just of successful organizations in the near future, but of the surviving ones. Prescriptions are being written for "virtual corporations" (Davidow & Malone, 1992) and "liberation management" (Peters, 1992)--normative advice for "structuring and revitalizing the corporation for the 21st century" (Davidow & Malone) as well as for managing "in the nanosecond Nineties" (Peters). Old tools and time-honored conceptualizations no longer work as effectively as they have in the past.

The concepts and models of traditional strategic management theory, for example, have come under increasing attack. Hamel and Prahalad (1989) state that,

rather than being helpful, "...the application of concepts such as 'strategic fit', 'generic strategies', and the 'strategic hierarchy' have often abetted the process of competitive decline." (p.63). This is in great part because in many industries the basic assumptions underlying the paradigm upon which strategic management was developed no longer hold sway.

Mainstream strategic management thought has long been centered in the assumptions of neoclassical microeconomic theory conveyed through industrial organization (IO) economics. According to this paradigm, competitive markets move toward an equilibrium wherein each firm earns a return just sufficient to warrant continued investment (zero economic profits). Sustained Profits exist only where competition is constrained in its ability to force this movement to equilibrium.

IO economists, whose central concern has been public policy, have focused on how to limit this monopoly power. Researchers in strategic management, on the other hand, have used the IO economists' structural analyses to determine how to sustain monopoly power and accompanying profits (e.g., Porter 1980). The premise that profitability is rooted in the restriction of competitive forces has in turn led to several strategic concepts and prescriptions. Basic to strategic management have been the ideas of industry forces, entry barriers, exit barriers, mobility barriers, strategic groups, generic strategies, strategic fit and sustainable competitive advantage.

These concepts have benefited from the analytical framework of IO economics, but they also suffer from its weaknesses. Teece (1985) has noted these weaknesses as including: focus on static analysis, focus on equilibrium, inadequacy of the theory of the firm, suppression of entrepreneurship, and treatment of know-how. He noted that, "the fact that technological and organizational change is such an important and pervasive aspect of reality and yet so peripheral in economic theory may be the single most important consideration limiting the contribution of orthodox economics to issues in strategic management." (p. 38)

In a time of measured thought and stable competition, the strengths of the IO model compensated for its weaknesses. This may no longer be the case. As D'Aveni (1994) has written, "The formal approaches to strategic planning are more appropriate for environments of traditional, slower and less aggressive competition...characterized by long periods of stability between disruptions. These periods call for more of an emphasis on carefully considered thought and deliberate action. Hypercompetitive environments, on the other hand, draw more upon the **instant reaction and reflexes** of the company." (p. 237).

In order to accommodate the reality of the new environment, the field of strategic management is beginning to undergo a fundamental shift from its traditional industrial organization paradigm, founded on the static concepts of neoclassical economic theory, to a more dynamic paradigm which draws from alternate conceptions of the market found in the writings of Schumpeter, Mises, Hayek, and others, often identified as the Austrian School (c.f., D'Aveni, 1994; Jacobson, 1992).

This alternative economic view is that markets are consistently unstable and rarely achieve equilibrium. The focus of this view is on entrepreneurial activity, discovery, and innovation. Competitive advantage and accompanying supra-normal profits are presumed to be short-term in nature as competitors adopt similar behaviors. Entrepreneurial activity is disruptive in the market and causes them to move away from equilibrium (Schumpeter, 1934). This thesis suggests pervasive attempts to move the organization and the host industry away from the stability traditionally attributed to equilibrium. The keys to survival and profitability are innovation and a focus on disrupting rather than sustaining the status quo. A comparison of the traditional Industrial Organization paradigm and the new Austrian paradigm are presented in figure one.

### **Figure 1: Key Factors in Each Strategic Management Paradigm**

#### I.O. Paradigm

create sustainable advantage  
fit: firm and environment  
monopoly rents  
restrict competitive forces  
assumed stable (equilibrium)

#### Austrian Paradigm

innovation/entrepreneurship  
disruption of status quo  
attack openings  
flexibility  
dynamic model

Because these paradigms establish the assumptions and theory which inform basic research and thinking in business, this shift in underlying economic foundations has profound implications. It demands a reexamination and reconstruction of traditional management concepts and constructs based on the new assumptions and premises of this paradigm.

## **II. ORGANIZATIONAL SLACK: AN OVERVIEW**

One accepted concept that needs to be looked at again is that of organizational slack. Different authors have variously defined slack, but it is basically understood to be excess or uncommitted resources, traditionally viewed as providing a cushion between the firm and unanticipated discontinuities in the environment. Much has been written on the forms, characteristics and applications of slack, but, drawing from

the I.O. paradigm, these papers have typically assumed (often implicitly) a goal of sustainable competitive advantage and a basically stable competitive environment. A shift to a more dynamic paradigm and different view of the market environment (to what D'Aveni 1994 calls "hypercompetition") changes the strategic nature and value of slack and calls for a reexamination of traditional forms of slack creation, recognition, and application.

## 1. DEFINITIONS OF SLACK

Historically, effective organizations have been those which not only are efficient, but which also possess resources sufficient to deal with unexpected environmental turbulence (Thompson, 1967). These resources represent organizational slack, an idea introduced by Cyert and March in their book A Behavioral Theory of the Firm (1963). In their view, organizational slack is the balance between resources held by an organization and the total demand for those resources by both internal and external entities.

Bourgeois (1981) reviewed this and other definitions of slack in the literature, before offering his own definition, which he called a "condensed paraphrase" of March's work:

Organizational slack is that cushion of actual or potential resources which allows an organization to adapt successfully to internal pressures for adjustment or to external pressures for change in policy, as well as to initiate changes in strategy with respect to the external environment" (Bourgeois, p.30).

According to Nohria and Gulati (1996), slack is simply, "the pool of resources in an organization that is in excess of the minimum necessary to produce a given level of organizational output." (p. 1246). Bourgeois and Singh (1983) add more specific dimensions to the concept of slack. They state that slack is

... composed of three interrelated but conceptually distinct dimensions; availability, recoverability and potentiality. Available slack consists of resources that are not yet assimilated into the technical design of the organization. Recoverable slack consists of resources that have been absorbed into the system design as excess costs. However, these resources may be recovered and reallocated during times of adversity. Potential slack consists of the capacity of the organization to generate extra resources from the environment, as by raising additional debt or

equity capital" (pg. 43).

Available slack has commonly been measured using the current ratio (current assets/current liabilities) of a firm, representing resources that are not being used, but are readily available (Bourgeois, 1981; Cheng & Kesner, 1997; Geiger & Cashen, 2002). Recoverable slack has been represented by the ratio of selling and general administrative expenses divided by sales (SG&A/sales). This type of slack can best be thought of as resources that are absorbed into the firm in the form of expenses which are greater than those needed by the firm. For example, firms may employ more individuals than necessary to operate effectively year round. (Geiger and Cashen, 2002, p. 72). Finally, Potential slack is the ability of the firm to gain extra resources through debt or equity. It is commonly operationalized using a firm's debt to equity ratio.

By extension, slack that is applied (i.e., that is no longer available) but is used in a way that is not recoverable is simply no longer slack. The strategic advantage accruing from such slack is gone. The implication is that management should concentrate first on identifying additional sources of potential slack, then on exercising due care in applying that slack in consumptive ways that reduce its availability.

Sharfman, Wolf, Chase, and Tansik (1988) examined the antecedents of organizational slack located in the firm characteristics (e.g., size, age, performance, etc.) and its environment (e.g., munificence, speed and size of change, life cycle, etc.). They also distinguished between high and low discretion slack, based on the flexibility of the slack resources -- the variety of situations to which the resources may be applied and the range of options available to managers in their use. Examples of high discretion slack include cash, cash equivalents, credit lines, raw materials, inventory, low skilled labor, and highly flexible machine capacity. Low discretion slack includes processed inventory, skilled labor, and low flexible machine capacity. The authors theorized that high and low discretion slack would be dictated by different pressures and would co vary negatively. That is, "situation-specific uses of low discretion slack are not likely to be found at the same time when flexibility and high discretion slack are needed" (p. 602).

## **2. APPLICATIONS OF SLACK**

Several possible uses for slack have been suggested in the literature. Cyert and March (1963) give examples of ways slack could be used, including: payment of excessive dividends; charging prices lower than necessary to retain customers; paying

wages higher than necessary to retain labor; providing perquisites to executives; and allowing unit growth beyond relative contributions (p. 36). In this role slack produces performance smoothing: lower in good times and higher in bad times. While other functions for slack have been suggested, the focus of much of this theory and research has been on slack as a buffer between the firm and its environment. Thompson (1967), for example, argued that the primary use of slack is to protect the firm from its environment; to "buffer the technical core". Sharfman, et al. stress that slack resources "give the firm leeway in managing changes **in response to** a changing environment" (p. 601).

In his definition, Bourgeois (1981) assigns the following roles to organizational slack: First, it is a cushion of resources which, "prevents a tightly wound organization from rupturing in the face of a surge of activity" (p. 30); and Second, it assists top management in "initiating and executing strategic changes" (p. 31) by enabling an organization both to adjust to shifts in the environment and to "experiment with new postures" (ibid). Bourgeois further suggests that slack serves four primary functions: (1) as an inducement for organizational actors to remain within the system, (2) as a resource for conflict resolution, (3) as a buffering mechanism in the workflow process, or (4) as a facilitator of certain types of strategic or creative behavior within the organization (p. 31). Bourgeois examines each of these functions in detail, further dividing the last function into three sections: innovation, satisficing, and politics.

In other work, Singh (1986) found a positive relationship between slack and risk taking. Meyer (1982) argued that slack can be stored in different forms (e.g., financial resources, human resources, and technology) which buffer differently from environmental jolts. Hambrick and D'Aveni (1988) felt that slack was "obviously important" (p. 5) to include in a study on corporate failures. They found loss of potential slack to be an early indicator of corporate bankruptcies, though a measure of available slack (ratio of working capital to sales) was significantly less for bankrupt firms only in the last year before the bankruptcy. Dess and Origer (1987) indicated that those organizations competing in "munificent" environments enjoy increased opportunities to acquire slack resources. Chakravarthy (1982) offered a complementary argument stating that organizations in hostile environments focus much of their attention and energies on the preservation of existing resources rather than the pursuit of excess or slack resources.

Slack has also been related to innovation and environmental adaptation (c.f., Nohria & Gulati, 1996). In a study of organizations' responses to environmental shifts, Cheng and Kesner (1997) contrast the concepts of slack as a buffer and slack as a resource for innovation. They suggest that the presence of slack as a buffer, Amight

actually reduce a firm's aggressiveness in responding to environmental shifts, and they are in direct opposition to the earlier view of slack-as-resources for innovation and change. (P. 4). Their results showed that the relationship between slack and a firm's environmental response is contingent on whether the firm has an external or internal focus. Nohria and Gulati (1997) review the arguments for both positive and negative relationships between slack and innovation. On the one hand, slack frees up resources for experimentation and adaptation. On the other hand, slack can lead to lax discipline and a sense of complacency decreasing the impetus for innovation. Based on their review of the literature, the authors predicted and subsequently found an inverse U-shaped relationship between slack and innovation in organizations. Either too little or too much slack was associated with decreased innovation. Geiger and Cashen (2002) expanded this study by examining whether the relation between slack and innovation differed among the three dimensions of slack. They found curvilinear relationships between innovation and recoverable and available slack and a linear relation between innovation and potential slack.

Bourgeois (1981) notes the possible use of slack as a resource for innovation, but he deals with this use as only one third of one of the four functions of slack which he addresses. He suggests several operational measures of slack including inventories (raw materials, work in process, and finished goods) and excess capacity, which allow the organization to adjust to changes in its environment (such as market demand).

Inherent in the typical presentation of slack is the concept of sustaining advantage by buffering the core, responding to environmental change, adjusting to new forces. Slack allows the organization to respond, to deal with immediate pressures while adjusting for the future. The question arises, though--do these definitions and applications continue to be valid in perpetually turbulent times, or are they in need of reexamination?

### **3. CHANGING STRUCTURES, CHANGING ROLES**

Is the traditional view of slack truly just a "fortuitous contriving"? The world of business has changed as have the basic premises of dealing with it. How does slack fit into an Austrian perspective on strategic management?

According to D'Aveni (1994) competitive advantages tend to erode quickly in hypercompetitive environments (the type characterizing most of business today). Traditional strategic concepts centered on maintaining these advantages, therefore, "are about as effective as shoveling sand against the tide" (p. 235). Companies succeed (maintain profitability) in this environment through the process of "creative



destruction" (Schumpeter, 1934). The key is not sustaining advantages, but consistently generating new advantages through disrupting the status quo of the industry.

Over the last decade, companies have been attempting to adjust to the new competitive environment by focusing on efficiency, reasoning that lean organizations will be able to respond more quickly. The key capabilities needed to succeed in this environment, however, are not efficiency but flexibility and innovation. Slack is no less important in this new environment, but its value lies in its contribution to innovation and flexibility not its buffering of the core. See Figure 2 for a comparison of these views of slack.

### **Figure 2: Old Slack vs. New Slack (Virtual Flexibility)**

#### Old Slack

Buffer the core  
Respond to Change  
Solution to Workflow Problems  
Capital Investments (inventories, excess capacity)

#### New Slack

High Discretion  
Create change  
Speed and Surprise  
Innovation  
Flexible Capabilities  
Investments in people, R&D

The new strategies, "stress flexible resources, such as capabilities for speed and surprise, which can be deployed in countless ways to carry out visions that last for short periods of time" (D'Aveni 1994; p. 239). This vision of slack places great emphasis on what Sharfman et al. called discretionary slack, with much less emphasis on non-discretionary slack. Traditional forms of slack such as excess capacity may in fact have a negative impact on performance. As D'Aveni notes, "Fixed capabilities, such as investments in plants and other resources, tend to commit a company to a certain course of action. In hypercompetition, companies develop flexible capabilities that enhance their actions but do not give away their strategic position" (p. 270).

Stress is also placed on the speed with which slack can be accessed. If slack exists but cannot be used fairly quickly (available slack) its value is greatly reduced in this new environment. It is our contention that recoverability is not just a function of access and process, but also speed--that is, in the current and predicted business environment only recoveries and conversions that can be accomplished quickly, in the short term, can rightly be considered to be recoverable (Volberda, 1996; Larson, 2001). In their study relating slack to innovation, Nohria and Gulati (1996), for example, focused on short-term slack, which they defined as excess resources that can be recovered within a year.

This concept can be better understood by setting it in the context of prior slack theories. These theories, as reviewed earlier, viewed slack as potential, available, recoverable, and non-recoverable. To this we add the notion of speed of application, that is whether the application is for the long term or short term. These conditions can be arrayed as follows:

**Figure Three: Traditional Categories of Slack**

Potential  
Available  
Recoverable  
Nonrecoverable

In traditional slack theories the top three categories have been considered "slack"--"nonrecoverable" slack is, by definition, no longer a slack resource. A new typology, we suggest would shift that array by reclassifying "recoverable (long term)" slack into the "nonrecoverable" category, for all intents and purposes. This is not significantly different, from the traditional model. We propose, though, that "potential (long term)" slack also be excluded; examples of this might be capital raised in external markets (including stock issues). The residual categories, (potential [short term], available, and recoverable [short term]) we call "attainable slack"--the sort that is most likely to provide "virtual flexibility". The reconfigured list would appear as follows:

**Figure Four: New Categories of Slack**

Potential (long term)	
Potential (short term)	Attainable
Available	Attainable
Recoverable (short term)	Attainable
Recoverable (long term)	
Nonrecoverable	

In hypercompetitive environments, investment in attainable slack should lead to superior long-term performance by providing the resources necessary to enable the firm to develop those capabilities most needed in today's world: flexibility, innovation, and learning. Investment in other types of slack may profitably be discontinued.

### III. CONCLUSION

In light of the changes that have occurred in the general business environment in recent years, we suggest that the traditional concept of organizational slack be reexamined and reconceptualized. We also suggest that this reconceptualization, reflecting as it does the shortened timelines and heightened decision sensitivities of the current and foreseeable business environment, constitutes a sort of "virtual flexibility". Effective organizations will quickly adapt operations to exclude slack applications that no longer help create competitive advantages but continue to invest in those that do.

The traditional perspective of slack as a buffer to the technical core or excess resources which allow a firm to respond to changes in the environment no longer holds the power it once did. At best this is now a partial and short-term view,

centered in attempts to defend a position and sustain advantage; generating profits through restricted competition. This will protect the firm for a short while, but it won't keep out the tide of change.

The emphasis on slack may now be more profitably placed on resources which are quickly attainable, highly discretionary, and which will aid the firm in disrupting the status quo; generating profits through innovation, speed, surprise, and flexibility (c.f., Lawson, 2001).

While the new competitive environment places a premium on speed and flexibility ("lean" businesses), the "downsizing" of organizations so recently in vogue must be managed with extreme caution so as not to eliminate the slack that ensures the long-term prosperity of the firm. Slack resources (i.e., not fully utilized) are still important in this new environment. It is not efficiency but innovation that is the key to survival. By allowing its researchers 10% of their time to work on their own projects, for example, 3M corporation helps ensure its continuing leadership in product innovation.

Bourgeois's (1981) concern that, "too much of management and administrative theory is preoccupied with ferreting it [slack] out and eliminating it through efficiency-seeking optimization principles" (p. 38), is even more valid in today's hypercompetitive environment. The key is to understand the difference between slack and waste, and to recognize and implement the right type of slack consistent with a broader picture of the long-term prosperity of the firm. There has been a shift in the role of slack in the present environment, but it remains a key to survival and profitability. Its use should be carefully planned by every organization.

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