



Revisiting Flexibility in Organizations: Exploring its Impact on Performance

Manoj Kumar Sharma

Honorary Professor, Delhi School of Management, Delhi Technological University, Delhi
E-mail: prof.mksharma@gmail.com / sharmaportal@gmail.com

Sushil

Department of Management Studies, Indian Institute of Technology Delhi
E-mail: sushil@iitd.dms.ac.in / profsushil@gmail.com

Pramod K. Jain

Department of Management Studies, Indian Institute of Technology Delhi
E-mail: pkjain@iitd.dms.ac.in / pkjain.iitd@gmail.com

Abstract

Today's knowledge age organizations operate in more turbulent business and regulatory environments and managers need to take proactive stance in creating combating strategies for such environments and to adapt to such external turbulent environments. Incorporation of 'Flexibility' in strategic processes of any organization becomes very important at various levels in all the perspectives of the organization. This paper critically highlights the gap in flexibility research that flexibility is not merely related to technology but flexibility is more deeply rooted in strategic management processes of organizations. The paper reviews the developments in different types of flexibility studies such as organizational, technical, operational, strategic, marketing and financial flexibility. The area of flexibility and organization strategy is emerging and needs a lot of attention in order to understand its impact on various management processes within organization leading to enhanced competitiveness and better performance. This paper also emphasizes on how flexibility has evolved as a concept and taken a shape of strategic driver to improve organizational performance.

Keywords: external flexibility, flexibility, financial flexibility, globalization, internal flexibility, marketing flexibility, organizational flexibility, strategic flexibility, technical flexibility

Introduction

Flexibility has many dimensions; Firstly, flexibility is perceived to be a managerial task. Can managers respond at the right time in the right way? In this connection, the concern is with the managerial capabilities that endow the firm with flexibility; for example, manufacturing flexibility to expand the number of products the firm can profitably offer in the market or innovation flexibility to reduce the response time for bringing new products to market. Secondly, flexibility is perceived to be an organization design task. Can the organization react at the right time in the directed way? The concern here is with the controllability or changeability of the organization, which depends on the creation of the right conditions to foster flexibility. For instance, manufacturing flexibility requires a technology with multipurpose machinery, universal equipment, and an extensive operational production repertoire. Similarly, innovation flexibility requires a structure of multifunctional teams, few hierarchical levels and few process regulations. From these two tasks, we derive the following definition (Volberda 1996):

“Flexibility is the degree to which an organization has

a variety of managerial capabilities and the speed at which they can be activated, to increase the control capacity of management and improve the controllability of the organization”.

The information age organization operates with integrated business processes that cut across traditional business functions. The strategies for information age organizations, however, cannot be linear or stable. Today's information age organization operates in more turbulent environments and senior managers need to receive feedback about more complicated strategies. In such constantly shifting environments, new strategies can emerge from capitalizing on opportunities or countering threats that were not anticipated when the initial strategic plan was articulated; ideas for seizing new opportunities come from managers deep down in the organization (Simons 1995).

It is, however, far too evident that organizational capabilities and market environment shape business strategy as well as performance, or *vice-versa* (Henderson and Mitchell 1997). This paper revisits the evolution of flexibility research and its different variants with a particular view to explore its impact on organizational performance.



Flexibility

In Webster's Collegiate Dictionary, flexibility is defined as "the quality of being capable of responding or conforming to changing or new situations". Of course, this definition says nothing specifically about organizational flexibility; but it is useful as it indicates, in general, we often know intuitively what flexibility should encompass. Flexibility is a multi-dimensional concept-demanding agility and versatility; associated with change, innovation and novelty; coupled with robustness and resilience, implying stability, sustainable advantage and capabilities that may evolve over time (Bahrami 1992). But its translation with respect to flexibility in organizations highlights this ambiguity and suggests that closer examination of these definitions is required to obtain a clearer grasp of the concept (Voberda 1996). A synthesis of thesis and antithesis, by exercising freedom of choice, exhibits 'systemic flexibility', which is the basis of an evolving paradigm, namely flexible systems management (Sushil 1997). Flexibility has many dimensions; a few representative ones are narrated here.

Flexibility: External and Internal Context

All organizations face internal and external environment so the flexibility associated with them are also there, i.e. external and internal flexibility. Ansoff was one of the first authors to probe more deeply into the concept of flexibility. He suggested that firms need internal and external flexibility to cope with unforeseeable contingencies. According to him, "external flexibility is best described by the maxim of not putting all of one's eggs in a single basket" (Ansoff, 1965). This type of flexibility can be achieved *defensively* through a product-market posture which is sufficiently diversified to minimize the effect of a catastrophe and/or *offensively* by putting the firm into areas in which it can benefit from likely breakthroughs. Offensive external flexibility is more elusive and harder to implement than defensive external flexibility, but it maximizes the chance of participating in breakthroughs.

In contrast with these types of external flexibility, internal flexibility is as old as business itself. It seeks to provide a cushion for response to catastrophe (Ansoff 1965). Instead of influencing contingencies, internal flexibility attempts to respond to such contingencies. In Ansoff's *Corporate Strategy*, however, this response is restricted merely to increasing the liquidity of a firm's resources.

A flexible organization is thus inherently stable. Instability is a result of a lack or excess of flexibility, so flexibility is the middle course between rigidity and over-reaction (De Leeuw and Volberda 1996).

Internal and external flexibility: Most definitions explicitly distinguish an internal and an external component of organizational flexibility. Other definitions use similar terms for the same distinction, which can be very confusing.

However, clarifying the point of reference may reduce a great deal of this confusion. Internal flexibility refers to the capacity of organizations to quickly adapt to the demands of the environment. It is based on a deterministic conception of the organization-environment relationship, which assumes that adaptation is necessary to survive. In most definitions, therefore, internal flexibility is defined as a reactive capacity resulting in corrective manoeuvres. Nonetheless, this does not have to be the case in situations in which the organizations changes internally as a kind of pre-emptive manoeuvres (Evans 1991) to anticipate possible changes.

On the other hand, external flexibility is the capacity of the organization to actively influence the environment, thereby reducing the vulnerability of the organization. It is based on a more voluntaristic approach, which assumes that there is 'slack' for strategic choice and that different organizational configurations are possible (Ansoff 1978). Ansoff (1965) asserts that external flexibility can result either in protective (defensive) or exploitive (offensive) maneuvers.

Flexibility: Active and Passive Context

Eppink (1978) rightly remarked that flexibility is used by Ansoff in a *passive* context because it is defined in terms of limiting the impact of environmental change on the organization. This passive connotation does not result in fundamental changes to the organization; it makes adaptations of existing structures superfluous. For instance, one can think of changing the purchasing policy (mult-sourcing) or designing a defensive approach to existing markets (alliances or information of trusts). In these situations, the turbulent environment is considered as a source of disturbances which must be closed off from the organization. By buffering the organization, the uncertainty is reduced to an acceptable level.

According to Eppink, a more *active* conception of flexibility includes the factors that make the firm responsive in the proper sense of the word. For instance, a more active definition of flexibility is given by Scott and Lodge (1985), who emphasize the ability to adjust or adapt to change, or Kieser (1969), who focused on the ability to adapt through internal changes to a changing environment and/or to take advantage of existing environmental changes. Eppink's own definition incorporates both the active and passive components of flexibility: "flexibility can be seen as a characteristic of an organization that makes it less vulnerable to unforeseen external changes or puts it in a better position to respond successfully to such a change" (Eppink 1978).

By contrast, many scholars (e.g. Ackoff 1971; Reichwald and Behrbohm 1983) relate passive flexibility to the acceptance of the unchangeability of the environment and the need for the organization to adapt, whereas their interpretation of 'active' refers to trying to change the environment itself. Therefore, we suggest that it is more

Flexibility is the degree to which an organization has a variety of managerial capabilities and the speed at which they can be activated, to increase the control capacity of management and improve the controllability of the organization.

adequate to use the term external flexibility for Eppink's passive notion and the term internal flexibility for Eppink's active notion. While internal flexibility goes together with self-adaptation, while external flexibility requires others to adapt.

It is important to note that Eppink explicitly related flexibility to *unforeseen change*. For the ability to respond to foreseen changes, he used the word 'adaptiveness'. The total responsiveness of an organization would then consist of adaptability and flexibility. He suggested that there may be some overlapping between the two but does not explain this point further.

Finally, on the basis of a classification of external change and Ansoff and Brandenburg's (1971) criteria of organizational effectiveness, Eppink distinguished three types of flexibility, each related to one type of change:

- **Operational flexibility:** flexibility required for changes which are familiar and often lead to a temporary change in the level of activity of the organization. In the case of operational flexibility, there is no substantial shift in the relationship between an organization and its environment.
- **Competitive flexibility:** flexibility which is necessary to react to changes in the direct environment. In contrast with operational change, competitive changes cause a major transformation in the market position of a firm or an industry, such as the introduction of a really new product with a substantial market impact or the market entry of new competition.
- **Strategic flexibility:** flexibility necessary to compensate for strategic changes which originate in the indirect environment of the organization and reach it via the components of its direct environment. These changes possess a high degree of unfamiliarity and are very dynamic and urgent. They require immediate attention to prevent the organization from being seriously affected. Examples of strategic change are the emergence of a radically new technology, the oil crisis, the Gulf War, and so on. Eppink concludes that strategic flexibility is a new area, but that organizations are increasingly being confronted with strategic change.

The customer of today's digital world has many choices in terms of product and services so the degrees of freedom of choices have increased multifold and provisioning of this has led, flexibility to be a key success factor in business. Not surprisingly then, it is suggested that the organizations should offer solutions for isolating, extending and modifying the business rules that drive the processes within digital value chain (D'souza and Williams 2000, Porter 2001). Consequently, research has demonstrated the importance of flexibility for firms to prosper in turbulent environments

(Dreyer and Gronhaug 2004). Flexibility within a business context is a rather complex concept to define as it incorporates several dimensions (Shi and Daniels 2003). Traditionally, flexibility tended to focus on the ability of firms to adjust their manufacturing volumes to varying market demand. However, more recently, the concept of flexibility has been extended to incorporate the ability of firms to develop new products, enter new markets and industries (Dreyer and Gronhaug 2004).

Flexibility: Managing Paradoxes

The trends in management point towards the traditional understanding of the word flexibility as antithesis of rigidity. This means increasing flexibility connotes removing rigidity. If this trend is extended it would mean, at the extreme, an infinite flexibility.

Both the extremes, i.e. thesis and antithesis are strong attractors. Chaos theory has amply shown such a pull towards stability as well as instability. On one hand forces of integration, controls, adaptation to environment and human desires towards certainty and security pull the organizations towards stability; on the other hand they are pulled towards extreme instability by decentralization, isolation from the environment, and human desires for innovation and excitement. In either of the situations, organizations are bound to fail. Miller (1990) has shown it very clearly in the study on the downfall of excellent organizations that they amplify their strategies, policies, attitudes and events towards either of the extremes which give them initial success, but in due course the extreme attractors bring them to failure.

A synthesis of thesis and antithesis, by exercising freedom of choice, exhibits 'systemic flexibility', which is the basis of an evolving paradigm, namely flexible systems management.

It would be dangerous for management to head towards infinite flexibility, which would mean utter confusion and total instability. The system having such level of flexibility will have no shape, standing and structure as everything in that system, i.e. boundary, components, interactions, etc., are bound to change. This would mean the antithesis of the system as such losing its identity.

It has been clearly shown by the study of Pascale (1990) that successful organizations are characterized by paradox showing integration or fit on one hand and differentiation or split on the other. Handy (1994) has given an elaborate treatment of paradox in the world of organizations and calls for finding a balance between many alternatives. According to him, "Paradox does not have to be resolved, only managed".

More and more researchers are now pointing out the inherent duality in the strategy concept and neither the dooms day nor the panacea views are correct. Possibly this characteristic was always there but in the era of continuous turbulence it is easier to visualize the need for duality of succeeding in today's core business to survive while fiercely innovating for tomorrow. The 'either/or' concepts need to be replaced by 'and' conjoints (Sushil 2009).

According to Fletcher and Olwyler (1997), contrary thoughts need to be encouraged for exploratory learning and strategic opportunism. Simultaneous top-down and bottom-up approach to learning helps to cope with uncertainty. McKenzie (1996) emphasized the need to treat chaos, paradox and learning as a composite for more holistic strategy paradigm. In diagnosing the paradoxes in organizational strategies McKenzie developed fifteen dialectal frames.

Internal flexibility is defined as a reactive capacity resulting in corrective manoeuvres.

Volberda (1997) considered flexibility as the most valuable strategic option in turbulent environment and proposed a construct of internal and external flexibilities at the operational, structural and strategic levels. Tushman and Anderson (1997) provide a series of dualities negating “a versus b” options for finding a way to meet the challenge of “a and b.”

In the context of field studies of high-technology firms of Silicon Valley, Bahrami (1992) refers to the emergence of a Bi-modal organization that could accommodate opposing tendencies and yet function as a coherent and cohesive concern. He has observed three types of tensions, viz. centralization versus decentralization, stability versus dynamism, and uniformity versus diversity.

Hammer and Champy (1994) emphasized hybrid centralized/decentralized operations while discussing reengineering business processes.

The flexibility in the systemic sense cannot be generated by attaching ourselves to a point on the continuum. The flexibility is generated in the system by virtue of the existence of the continuum. The success lies in making a dynamic balance between the polar extremes.

Thus, the systemic flexibility can be defined as:

“Flexibility is the exercise of free will or freedom of choice on the continuum to synthesize the dynamic interplay of thesis and antithesis in an interactive and innovative manner; capturing the ambiguity in systems and expanding the continuum with minimum time and efforts”. (Sushil 2000)

While internal flexibility goes together with self-adaptation, external flexibility requires others to adapt.

Flexibility concept has been treated at various levels both in research and practice; some prominent types of flexibility are reviewed in the subsequent sections based on the concept of a flexible enterprise (Sushil 2008).

Organizational Flexibility

The organization chart of a traditional enterprise had long been defined as a shrinking pyramid with the CEO at the top. The 21st century organization has started looking like the Web; horizontal, a mesh that connects partners, employees, external contractors, suppliers, and customers in various forms of collaborations. The players are likely to grow more and more independent. Tomorrow’s corporations are likely to be highly virtual, defined not by their location

but by their ability to acquire knowledge, organize information, and organize independent contractors as well as suppliers worldwide. To keep ahead of the steep new-product curve, it will be crucial for organizations to attract and retain the best thinkers. Companies will need to build a deep reservoir of talent - employees and free agents - to succeed in this new era (Amor 1999, Aalst 2000). Companies should be flexible enough to employ customer-focused people at every level of the organization and build processes that are not only simple to execute but also flexible enough to change with changing times.

The need for organizational flexibility to accommodate a changing world is well understood. Today’s high-velocity and competitive markets apply added pressure to adapt rapidly and perform at high levels. Organization is essentially a systemized whole consisting of interdependent and coordinated parts. Flexibility, however, centers on modification or adaptation. The more systemized and interdependent a group of humans is, the more difficult is the change process. Thus, flexible organizations typically have been thought of as having less top down control and more than an individual empowerment. Finally, many present-day theorists speak of the importance of possessing the dynamic resources and abilities necessary for rapid and effective action in business activities and decision-making. These action-oriented or kinetic capabilities are presented as essential complements to positional competitive advantages, a view that puts even further demands on the organization.

Thus, organizational approaches are cornerstones or kinetic capabilities and are likely to be of primary importance for certain positional advantages, such as relationships with stakeholders. The flexibility in collaboration also refers to organizational flexibility as strategic alliances are more likely to involve competitors (Duysters, Kok and Vaandrager 2000). Contractor and Lorange (2002) suggest that the role of inter-organizational cooperation grows in the future due to three broad reasons: regulatory factors, changes in the business and economic environment, and changes in industry practice and strategy. Companies must have flexibility in their alliance strategies to allow them to form quickly and effectively virtual supply chains that may transcend industry and national boundaries overcoming regulatory hurdles. Also, intermediaries need to renew organizational skills, resources and functional competencies to sustain the advantages that they build (Teece, Pisano and Shuen 1997).

Organizational flexibility is often used as a general and abstract term without any additional clarification (general approach). Not surprisingly, an explicit definition is more often than not omitted. Rather, flexibility is reduced to certain aspects of the organization (functional approach) or related to certain stakeholders in the organization (actor



approach) (Voberda 1998). Organizational flexibility is increasingly important in an era of rapid technological change and turbulent global markets and process flexibility is key requirement (Stohr and Muehlen 2008)

In Weick's (1982) treatment of loosely coupled systems, organizational flexibility stands for *adaptability* to exploit future opportunities. These opportunities may appear suddenly when the environment changes and may require a repertoire of responses that have been neglected because of their irrelevance to present demands. In these situations, flexibility is required to modify current practices so that non-transient changes in the environment can be adapted to. Thus, the organization must detect changes and retain a sufficient pool of novel responses to accommodate to them.

Organizational flexibility is imperative necessity for its own survival. To be a flexible organization, it, *inter-alia*, should create/observe the following dimensions: First, creating a responsive internal environment that can quickly react to any change in the marketplace, planned or unforeseen, a threat or an opportunity. Second, an organization should have variable cost dominated structure to manage costs in situation of growth of the organization or recession in industry or change in demand. Third, an organization needs to be focused on profitable and core activities to the enterprise's success. Finally, the organization needs to have a resilient infrastructure that is available around the world and round the clock (Phan 2001).

Flexible organizations mandate that business processes are integrated end-to-end, enabling it to respond with flexibility and speed to any customer demand, market opportunity or external threat (Sethi and Sethi 1990; Shi and Daniels 2003). As organizations use real-time information to accelerate an increasing number of business processes, flexibility and adaptability become fundamental requirements for supporting today's—and tomorrow's—business imperatives (Davidson 1999).

Technical Flexibility

Technology, which is the primary force behind the emergence of the new economy, has become not only a means of production but also a main component of service, relationship building, collaboration and co-existence. In this context, the importance of flexibility in technology cannot be under-emphasized.

Gorod *et al.* (2008) observed a very interesting concept of System of Systems (SoS) that “Systems are an integrative part of the global business scenario and organizational flexibility is becoming a requirement in order to remain competitive and keep pace with the changing operating environment and increasing complexity of systems. In recent years, the term System of Systems (SoS) has been increasingly discussed in both industry and academia as an emerging systems solution to complex problems. These complex problems with emergent and adaptive behaviors

have also created a demand for flexibility in these systems. It is the dynamic environment that these systems routinely perform and create this demand. As a result, there is a reciprocating impact on customer needs that are continuously changing, which results in an exponential increase in complexity.

In order to remain competitive, these systems and the organizations that realize them have to have more options, which is a direct influence on flexibility. These options also create a strain on the resources of any system, both intellectual and physical. To address these constraints while maintaining a requirement for flexibility, the organizations that design these systems have to maintain a competitive advantage and by so doing rely heavily on the outsourcing of capabilities and resources. Outsourcing can enable an organization to be more competitive and offer the customers more value. However, outsourcing and the flexibility, it potentially propagates, introduces a new set of risks.

The review of modern literature indicates that the use of characteristics enables us to better identify dynamic nature of various forces within SoS (Boardman and Sauser 2006).

However, more recently, the concept of flexibility has been extended to incorporate the ability of firms to develop new products, enter new markets and industries.

Technical flexibility refers to freedom of choice organization possesses in terms of technology platforms available. Once

the enabling technologies are flexible enough to quickly adapt to a changing market environment, it is important to create flexibility in core processes of technology related business processes. Many studies in the past have shown that organizations can use technology as a resource to gain competitive advantage (Parsons 1983; Clemons and Row 1991).

Nelson and Ghods (1998) describe technology flexibility. It is the technology characteristic that allows or enables adjustments and other changes to the business process; further they explain that technology flexibility has two dimensions, structural and process flexibility, encompassing both the actual technology application as well as the people and processes that support and use it. The flexibility of technology that supports business processes can greatly influence the organization's capacity for change. Byrd and Turner (2001) identify several dimensions of technological flexibility such as data transparency, compatibility, application functionality, connectivity, technical skills, boundary skills functional skills, and technology management. They also observe that flexibility in technology (measured by integration, modularity and IT personnel flexibility) is positively correlated to an organization's innovativeness, mass customization, market position and difficulty to duplicate.

Malhotra (2001) identifies technology flexibility as the ability to cope with the integration of new e-business applications with the existing brick-and-mortar infrastructures. Such integration entails flawless fusion of enterprise resource planning, supply chain management and



customer relationship management, which is not possible without having integration standards, network capacity, data storage capacity and processing power. Gronhaug (1999) links technological flexibility with product and services flexibility by using the open-system metaphor. Katz and Kahn (1966) viewed organizations as input-throughput-output systems. Flexibility in formulating and executing a technology strategy, which is critical to achieving a sustained competitive advantage for firms in the new market environment, must address such issues as impact of technological change within the organization and impact of technological change on the market.

Technological changes can exert a huge impact on the market by directly affecting the size and nature of customers, partners/suppliers competitors and products. In order to provide the flexibility, scalability and reliability required of mobile telephony services, companies need to create a flexible e-business infrastructure. This infrastructure should consist of open interfaces that allow new applications and services to easily connect. The flexible e-business infrastructure should include universal connectivity through the use of open standards and integration with internal as well as external services. Universal connectivity through the use of open standards implies that companies must allow customers, business partners, suppliers and stakeholders to have access to systems and applications with a variety of access devices available.

Having interoperability to allow sharing or communicating with mixed technologies across and beyond the enterprise is an important success factor; for the purpose, technology infrastructure should have capability to integrate internal and external services seamlessly. By integrating business applications and data among customers, suppliers, partners and employees, companies can achieve a more effective and efficient e-business model. Enabling integration is accomplished by using open standards-based infrastructure elements in conjunction with integration; this in turn, allows existing application functionality to be integrated with the new application logic (Shi and Daniels 2003). Technology flexibility and bandwidth scalability to support next-generation communications and entertainment services also helps in migrating its infrastructure to a common IP/Ethernet network.

Operational Flexibility

Operational flexibility of organizations encompasses people, process and structure, where operations of an organization is planned, processed and executed. Krijnen (1979) noted that firms functioning in a turbulent environment are increasingly confronted with uncertainty to the extent that the consequences of their actions are less predictable. It becomes more difficult for them to intercept in some way or other the unfavorable consequences which are not at all

or only partly predictable. Consequently, they will have to make additional decisions at the moment when disturbances occur. These disturbances can be dealt with only at the moment when they occur or are perceived. These circumstances require the presence of flexibility in the organization.

According to Krijnen (1979:64), "a flexible firm has the ability to change itself in such a way that it remains viable". In this context, change stands for:

- Flexible *adaptation* to circumstances, events taking place in the environment which were by no means predictable or foreseeable;
- Altering the organization by taking into account developments in the environment which are likely to occur. That is, the firm *anticipates* these changes by means of planning;
- Developing activities in order to *influence* the environment so that the firm does not have to adapt itself.

In accordance with Ansoff and Brandenburg (1971), Krijnen argued that changes may appear to be necessary at *three levels of the decision-making process*. First, changes may be essential at the *strategic level*, that is, the level of strategic policy at which the economic and basic social goals, the strategy, and the product-market combinations

(PMCs) of the firm are fixed. At this level, there is a great deal of strategic flexibility when the firm is able to change easily the composition of all the PMCs by renewal products, by switching to new markets or different technologies, by the acquisition of other firms, and via divestment of unviable business units. Secondly, the *organizational level*, consisting of the organizational structure, and the decision-making and communication processes, may be subject to change. There is structural flexibility when the firm has the possibility of easily changing the existing structure itself when doing so proves to be necessary. Finally, the organization may have to adapt regularly at the *operational level*. A firm shows a great deal of operational flexibility when it is able to react efficiently to changes in the production volume as a consequence of temporary fluctuations in demand for products. For Krijnen, an organization is flexible when it is able to implement the necessary changes adequately at these three levels.

Volberda (1998) explained that operational flexibility required for changes which are familiar and often led to a temporary change in the activity of level of organization. In the case of operational flexibility, there is no substantial shift in the relationship between an organization and its environment. For consistent customer service applications, customer data must be integrated with different databases and applications (Oliver 2001). The integration of

Flexibility is the exercise of free will or freedom of choice on the continuum to synthesize the dynamic interplay of thesis and antithesis in an interactive and innovative manner, capturing the ambiguity in systems and expanding the continuum with minimum time and efforts.



applications, processes and data creates a single view of the customer, prevents discrepancies in customer data and ensures consistent service to the customer. In addition, any employee irrespective of their rank in the organization who interacts with customers should be allowed to have an access to any customer information necessary in order to provide superior service (Papazoglou *et al.* 2000).

Strategic Flexibility

Strategic flexibility has been considered by previous research in strategic management, economics, organization theory and marketing. Consequently, there is a diverse range of definitions about this term (Genus 1995). The conceptualization of strategic flexibility has been described and studied by numerous authors. The notion of strategic flexibility, that is probably the closest to an everyday understanding of flexibility, is the ability to do something other than that which had been originally intended (Evans 1991).

Strategic flexibility (or non-routine steering capacity) refers to capabilities related to the goals of the organization. This most radical type of flexibility is more qualitative and involves changes in the nature of organizational activities. Such flexibility is necessary when the organization faces unfamiliar change that has far-reaching consequences and needs to be responded quickly. Eppink (1978) explained strategic flexibility is necessary to compensate for strategic changes which originate in the indirect environment of the organization and reach it via the components of its direct environment. They require immediate attention to prevent the organization from being seriously affected. Eppink (1978) concludes that strategic flexibility is a new area, but that organizations are increasingly confronted with strategic change.

Conceptually, strategic flexibility suggests the ability to take some action in response to external environmental changes (Evans 1991; Buckley 1997; Matusik and Hill 1998; Johnson *et al.* 2003) and thus can be viewed as a strategic capability (Aaker and Mascarenhas 1984; Bahrami 1992). Strategic flexibility is the ability to precipitate intentional changes and adapt to environmental changes through the continuous rethinking of current strategies, asset deployment and investment strategies (Evans 1991; Bahrami 1992; Sanchez 1995). Consequently, strategic flexibility can be conceptualized in two ways: firstly, with regard to the variation and diversity of strategies and secondly, to the degree at which companies can rapidly shift from one strategy to another (Slack 1983; Nadkarni and Narayanan 2004). Hitt *et al.* (1998) conceptualize strategic flexibility as the capability of the company to proact or respond quickly to changing competitive conditions and thereby develop and/or maintain competitive advantage. Aaker and Mascarenhas (1984) focus on substantial environmental uncertainty creating the need for strategic adaptation.

Technology flexibility is the technology characteristic that allows or enables adjustments and other changes to the business process.

Sanchez (1995) suggests that the company's strategic flexibility as jointly depending on the inherent flexibility of the resources available to the company (resource flexibility), and on the company's flexibility in applying those resources to alternative courses of action (co-ordination flexibility). Evans (1991) suggests strategic flexibility is a function of the event that impacted on the company, by necessity instead of choice, being used to denote the company's deliberate or emerging capabilities to manoeuvre offensively or defensively.

Strategic flexibility (high variety, high speed) consists of managerial capabilities related to the goals of the organization or the environment (Aaker and Mascarenhas 1984). The issues and difficulties relating to strategic flexibility are by definition unstructured and non-routine. The signals and feedback received from the environment tend to be indirect and open to multiple interpretations, 'soft' and 'fuzzy'. Because the organization usually has no specific experience and no routine answer for coping with the changes, management may have to change its game plans, dismantle its current strategies (Harrigan 1985), apply new technologies, or fundamentally renew its products. Its response may also be external, for example influencing consumers through advertising and promotions (Mascarenhas 1982), creating new product-market combinations (Krijnen 1979), using market power to deter entry and control competitors (Porter 1980), or engaging in political activities to counteract trade regulations. Besides cross-hierarchical and cross-functional managerial roles, strategic flexibility requires intensive ideological management and cross-value capability development. New values and norms are necessary and past experience may not provide any advantage (Newman *et al.* 1972).

Strategic Flexibility – External

All the organizations are embedded in external environment and face its own internal environment. The environment can include external factors such as regulatory, economic, political and social changes affecting the company's primary and secondary task environments (Achrol and Kotler 1999). A more deterministic strategy approach indicated that changes in the company's environment resulted in the reassessment of strategy among a given array of strategic alternatives (Porter 1980, 1985; Harrigan, 1986; Parnell 1994, 2003). Thus, strategic choice was based on how a company evaluated its position in the environment. Porter's identification of low cost, differentiation and focus as to generic strategies for achieving sustainable competitive advantage (Porter 1980; 1985) is the basis of many strategy studies.

Strategic Flexibility – Internal

All organizations achieve their objectives by managing their people, processes and structures through various strategies. Burnes (1992) identified three types of strategy according to the level of strategic decision-making. Firstly, Corporate



Level Strategy was described as being concerned with the direction, composition and coordination of the various business units within a large and diversified organization. Then, Business Level Strategy related to the operation and direction of individual business units within a group of companies. Finally, Functional Level Strategy related to individual business functions. This internally driven strategic flexibility split into three levels is similar to Krinjnen's (1979), cite Volberda (1997) division of the strategic decision-making process into: the strategic level - strategic policy, economic, social goals, product market mix; the organizational level- organizational structure, decision-making and communication processes, and finally, the operational level - production volumes. Sanchez (1995) argued that two critical components of strategic flexibility were 'resource flexibility' and 'coordination flexibility', which are both controlled from a company's internal environment.

This conceptualization of strategic flexibility implies an inward focus on the company's internal environment and different strategic options are possible depending on the nature of the change and the internal company influence.

Strategic Flexibility – Continuity and Change

Strategic flexibility is also seen as a confluence of continuity and change. According to Tanenbaum and Hanna (1985), changes in organizational identity are a painful experience and hence resisted by organizational members. "Stability in organizational identity is seen as providing members with psychological anchors in times of change" (Gustafson and Reger 1995). It has also been established that "sense of sameness over time is necessary for psychological health" (Albert and Whetten 1985).

Christensen and Cheney (2000) indicate that spokespersons need to show that "organizations are stable yet responsive entities with an inspiring history and a reliable presence". Gioia (1998) further suggests that research should explore how change is "balanced with the need to maintain a connection to past conceptions of the organization". Thus, according to Volberda (1998) "every organization needs some stability or continuity, for if everything about an organization were to be always in flux, it would be crippled by chaos".

The notion of 'continuity and change' was popularized in the business press after Collins and Porras (1994) highlighted in their much celebrated book *'Built to Last'* that the "ability to manage continuity and change is the secret to an enduring great company". Mintzberg *et al.* (1998), too after exploring the wilderness of 'strategic management literature' admitted that "despite all current hype about change not all organizations need to change all the time". According to them, it is much more effective to balance change with continuity. Further, Leana and Barry (2000) argue that tension between stability and change is inevitable and is a part of organizational life. Others suggest

that change leadership must balance continuity and change (Burke and Trahan 2000; Pettigrew *et al.* 2001).

Sturdy and Grey (2003), elaborating on how to manage continuity and change state that, "continuity and change be managed not as alternative states but as co-existent ones". They further add that it is imperative for managers today to embrace stability and learn to manage continuity if they want to survive.

One of the earliest thinking of "reconciling change and continuity" in strategy making was recommended by Mintzberg (1987, 1988) in his excerpts on "Crafting Strategy". Since then, hosts of management writers have tried to draw attention towards the need for managing 'change and continuity' together for better performance; but very few of them have actually attempted to present a framework for doing so. The first attempt to consciously manage the

Strategic flexibility is a function of the event that impacted on the company, by necessity instead of choice, being used to denote the company's deliberate or emerging capabilities to manoeuvre offensively or defensively.

confluence of continuity and change as part of corporate strategy was recommended by Collins and Porras (1994). Sherman, Rowley, and

Armandi (2007), however, have recommended an approach emphasizing the importance of pre-planning phase, wherein the organization's strategic profiling and strategy formulation be done in such a way that organization's 'key strategic strength' is not changed.

After a representative literature review, "Crafting Strategy" (Mintzberg 1988), "Paradox of Flexibility" (Volberda 1998) and "Flowing Stream Strategy" (Sushil 2005) seem to have gone significantly beyond mere acceptance of the need to manage continuity along with change for better organizational performance through strategic flexibility. This is illustrated as a new approach for strategizing in e-government by Saboohi and Sushil (2010) and in the context of managing innovation by Bhat (2010).

From the previous discussion, it is clear the term strategic flexibility has no commonly agreed definition. That is why, as mentioned earlier, the various definitions of strategic flexibility by different researchers relate to a number of different perspectives (Roberts & Stockport 2009). Some select perspectives of strategic flexibility are summarized in Table 1.

Marketing Flexibility

Market is a place where buyers and sellers meet to transfer their products and services for some considerations. Therefore, market place has many actors inter-related to each other through different processes to achieve their desired objectives. Companies-an actor in market place are required to be flexible in their product offerings as one variety (or even a few) is (are) not likely to be adequate to cater to the varying needs, tastes, and expectations of an increasingly segmented and global customer base. Flexibility, in this context, refers to the ability of a company to meet this challenge within the overall framework of its business strategy. The capacity and speed of product innovation is an attribute of such flexibility.

Abbot and Banerji (2003) describe marketing flexibility as ability to have a high market share/strong market presence. According to Grewal and Transtutaj (2001), market flexibility is defined as the ability of transnational corporations to recalibrate its marketing efforts in a short period in response to changing environmental context.

The Real-Time Billing Solutions of the company 'Comverse' are designed to enable BPL Mobile to provide a broad set of new subscriber services- thanks to advanced real-time rating, subscriber management and billing for content capabilities. The company said the solutions are based on an open architecture, providing BPL Mobile with the marketing flexibility to introduce competitive prepaid offers and real-time usage-based promotions, bonuses and discounts that match the needs of its diverse subscriber base (Wireless News 2007).

Financial Flexibility

The concept of flexibility has developed primarily in the context of manufacturing and organizational systems. As regards financial management systems, the need and *raison d' etre* of flexibility has drawn increased attention of professionals only in the recent years. The concept of real options and their interaction with the financial flexibility of the firm has been reviewed by Trigeorgis (1993).

Financial flexibility can be defined as “exercise of the freedom of choice within the framework of government’s monetary and fiscal policies, capital market regulation, investor’s risk returns preferences and corporate strategy, evolving financial processes with versatility, adaptiveness and transparency for better resonance with business environment”.

Kaulatilaka (1993) has presented new methods for determining the value of flexibility in project selection; he concludes in a case that the value of flexibility exceeds the value of incremental/additional cost. In the context of financial management, Gupta (1983) has aptly underlined the significance of flexibility. Balance sheet can be used primarily for assessing the vulnerability of an enterprise in terms of the strength and flexibility of its financial frame which can be best thought as a kind of constraint ring surrounding the enterprise.

Flexibility (in financial management) refers to liberation of the financial management from the clutches of the strict normative framework for providing freedom of choice to financial managers. Financial flexibility can be defined as “exercise of the freedom of choice within the framework of government’s monetary and fiscal policies, capital market regulation, investor’s risk returns preferences and corporate strategy, evolving financial processes with versatility, adaptiveness and transparency for better resonance with business environment” (Jain and Sushil 2000).

The investment decisions are desired to be governed by the growth strategy adopted by the organization; there is need of compatibility of the project with corporate strategies and core competencies. There is further room for “financial

Table 1: Select Definitions of Strategic Flexibility

Author & Year	Definitions
Roberts and Stockport (2009)	“As strategic choice available to company and the company’s ability to take advantage of those choices”
Sushil (2005)	“Organizations that are under high continuity forces as well as high change forces are ‘Synthesizers’ and are supposed to exhibit strategic flexibility to integrate the opposing forces acting simultaneously.”
Johnson, Lee, Saini and Grohman (2003)	“The firm’s intent and capabilities to generate firm-specific real options for the configuration and reconfiguration of appreciably superior customer value propositions”
Volberda and Rutges (1999)	“Strategic flexibility or non-routine steering capacity consists of managerial capabilities related to the goals of the organization or the environment”.
Buckley and Casson (1998)	“Ability to reallocate resources quickly and smoothly in response to change”
Lau (1996)	“Strategic flexibility refers to a firm’s ability to respond to uncertainties by adjusting its objectives with the support of its superior knowledge and capabilities”.
Upton (1995)	“Whether one is referring to products, production volumes or manufacturing processes, flexibility is about increasing range, increasing mobility, or achieving uniform performance across a specific range”.
Bahrami (1992)	“The ability to precipitate intentional changes, to continuously respond to unanticipated changes, and the ability to adjust to unexpected consequences of predictable changes”.
Evans (1991)	“Capability to modify strategies”.
Eppink (1978)	“Flexibility makes an organization less vulnerable to or better able to respond successfully to, unforeseen environmental changes”. “Flexibility can be seen as a characteristic of an organization that makes it less vulnerable to unforeseen external changes or puts it in a better position to respond successfully to such a change.”
Ansoff (1965)	“Flexibility can be measured by two proxy objectives: external flexibility achieved through a diversified pattern of product- market investments, and internal flexibility through liquidity of resources”; “not putting all of one’s eggs in a single basket”

flexibility” in terms of capital availability, sources of finances and the cost of capital.

Flexibility in capital structure process is concerned with exercise of the freedom of choice to dynamically interplay among the various sources of, providers of funds (individual as well as institutional investors from the country and abroad) and various financial instruments, keeping in the view the conditions prevalent in financial markets, government regulations in vogue and firm’s own financial leverage ratios.

Flexibility in dividend decisions, being open to various policy options as well as different modes of implementation, provides leverage to the decision-maker in terms of speed of adjustment, taking care of extreme financial position of the firm and the liquidity crisis. The following of such a dividend policy is likely to be instrumental, be more ‘investor friendly; this, in turn, contributes towards price enhancement of the share as well as higher evaluation of the firm.

Finally, the key issues related to flexibility are summarized in Table 2.

Flexibility is seen, by various authors, as a key dimension that impacts organizational competitiveness and

performance; a review on this front with key frameworks of strategic performance management is provided in the next section.

Organizational Competitiveness/Performance

Firms operating in today’s economy are encountering increased pressures due to several factors including a rapidly changing business environment, shorter product life cycles, increasingly demanding and less loyal customers with rapidly evolving preferences, and fiercer competition (Dreyer and Gronhaug 2004). These concerns have been caused primarily due to an increasingly global economy, deregulation in many industries, and fast developments in information technologies that enable new business models and novel forms of collaboration and competition. This is, in particular, the case for firms that operate within an online environment (such as Mobile Telephony) which is characterized by lower switching costs, lower barriers to entry, more substitution threats, quickly changing regulations and increased competition due to lower differentiation and increased geographic reach (Porter 2001). As discussed in the previous sections, flexibilities of different kinds contribute towards enhancement of organizational competitiveness/performance.

Table 2: Key Issues Related to Flexibility

Type of Flexibility	Author (Year)	Key Issues
General Definition	Sushil (1999, 2000)	Flexibility is not to do as you like, but freedom-of-choice within a framework. It refers to options, change mechanisms and freedom of choice.
Internal Flexibility	Scott Morton (1991)	Creative innovative capabilities, the capabilities for quickly recombining and redeploying resources and competencies.
External Flexibility	Scott Morton (1991)	Abilities of an organization to grow in spite of turbulence seeking out most of the random or emerging opportunities.
Organizational Flexibility	Sushil (2000), Volberda (1996)	It dynamically balances the opposing phenomenon such as centralization–decentralization / continuity-change. Flexibility derives from the repertoire of managerial capabilities (management challenge) and the responsiveness of the organization (organization design challenge). On the basis of theories of control, the author argues that organizational flexibility is inherently paradoxical and requires a constructive friction between change and preservation.
Strategic Flexibility	Sushil (2005), Sanchez (1995)	Firms ability to respond to various demands from dynamic competitive environments in a competitive manner. Strategic Flexibility is closely linked to environmental uncertainty.
Marketing Flexibility	Abbot and Banerji (2003), Grewal and Transtutaj (2001)	Ability to have a high market share/strong market presence. Market flexibility is defined as the ability of Transnational Corporations to recalibrate its marketing efforts in a short period in response to changing environmental context
Financial Flexibility	Jain and Sushil (2000)	<ul style="list-style-type: none"> Financing flexibility is an exercise of the freedom of choice to dynamically interplay among the various sources of (i) Finance (ii) providers of funds and (iii) various financial instruments. Flexibility in financial strategies, open to interplay from dilution to enhancement of EPS and profitability is likely to help in creating financing flexibility.



‘Competitiveness’ originates from the Latin world, *competere*, which means involvement in a business rivalry for markets. In business parlance, the term implies the ability to compete. Competitiveness is a complex, multidimensional and relative concept. It is linked to a large number of interdependent variables, making it difficult to sense and define it. Defining and measuring competitiveness is itself a research challenge; it is a relative concept without bearing any direct relationship with economic performance indicators. Competitiveness has been dealt with by coining two separate but related concepts, namely, comparative advantage and competitive advantage. Competitive advantage corresponds to the notion of firm specific assets and describes the proprietary elements of the firm that determines what activities it should undertake and what distinguishes it from its competitors (Porter 2001). The real difference between these two terms in existing literature seems to lie in their levels of analysis. While the literature on comparative advantage deals with the issue of competitiveness of nations and their industries, writers on competitive advantage are more concerned with firm level.

The competitiveness has been getting importance in the USA toward the later half of the 20th Century. Declining competitiveness of USA in the early 1980s can be attributed to macroeconomic factors. The rising competitiveness of Japan in international trade was inter-linked with macroeconomic factors, such as long-run productivity growth, higher savings and investment rates, government’s emphasis on quantity and quality of education and investment in public infrastructure (Baumol and McLennan 1985). Some authors (Vernon 1966; Krugman 1983, 1986; Porter 1990) have argued while factor advantages have been important in the 18th and 19th centuries, economies of scale, technological change, comparable factor endowments, cheaper transportation costs and inflow of foreign capital and other factors have pushed firms towards factor exploiting advantages of multiple nations, thus leading to the emergence of a large number of multinational firms. Some writers (Borras 1983; Tyson 1988, 1992) have accorded prominence to the role of the government. It is noteworthy to observe that in newly industrialized countries (NIC), governments have nurtured infant industries and shaped competitiveness of firms in these industries to gradually enter the global market and gain prominence. The market promotion policy of the government has been focused on those industries that have spill over effect over entire economy because of ‘linkage externality’ (Krugman 1987) and on which the future competitive success of various industries depend (Tyson 1988).

Competitiveness is also defined as the accumulation of competitiveness of firms operating in nation’s boundary

cutting across industries or group of industries (Chesnais 1986). Researchers have conceptualized firm level competitiveness as competitive position of a firm vis-à-vis its competitors in international markets. This is determined by three sets of interrelated factors, namely, delivered costs, product characteristics and users’ perception about the match between a product/service and their needs; the last attribute is measured by factors like cost and quality of products/services, speed of delivery, brand image, etc. or a composite factor. Porter argues that the roles played by comparative factor advantage are there but there exist competitive industries in many countries not endowed with comparative advantage in the relevant factors (Porter 1990). Classic example of this argument is Japan. Some writers (Hays and Wheelright 1983) attribute the competitiveness problem and challenges of US to micro (firm level) developments, such as lower emphasis on manufacturing and operations, product and process innovation, short-term orientation of corporate managers and less emphasis on technology development. Key issues related to competitiveness/performance are summarized in Table 3.

The competition at firm level depends upon the performance, which can be dealt with under multiple perspectives using various strategic frameworks. Balanced scorecard (Kaplan and Norton 1996) has been a widely used framework for strategy deployment and performance assessment. A brief review of balanced scorecard and its adaptation in the evolving framework of the flexible strategy game-card is given in the next sub-sections

Balanced Scorecard

The term, balanced, can be traced to the Greek playwright, Euripides, who espoused the value of a balanced life, and to the organization trust literature that recommends balanced reporting as a basic requirement of trust in an organization (Bromiley and Cummings 1989). The term, scorecard, simply refers to an approach of documenting results of an activity. Sporting activities, such as golf, use scorecards to document the performance expectations (e.g., par, yardage, handicap), actual score on a hole, and the overall score of the round (usually considered 18 holes).

Balanced scorecard has been responsible for creating, expanding, and popularizing a number of terms and concepts that are used in management and strategy literature today.

Organizations today have a scorecard for most functions (e.g., HR scorecard, IT scorecard, stakeholder scorecard), but they are often not balanced scorecards. The balanced scorecard refers to a set of performance measures that is used to manage and control the strategy of an organization. The balanced scorecard begins after the vision and strategy of an organization are developed and is meant to ensure that

The balanced scorecard refers to a set of performance measures that is used to manage and control the strategy of an organization. The balanced scorecard begins after the vision and strategy of an organization are developed and is meant to ensure that the organization is tracking measures that represent progress in executing the strategy.



Table 3: Key Issues Related to Competitiveness/Performance

Author(s)	Key Issues
Sushil (2009)	Performance to be managed and required from the dual perspective of the enterprise as well as the customer.
Porter (2001)	Productivity is also considered as prime factor to understand the current competitiveness.
Momaya (2001)	Competitiveness is an indicator of the economic strength of a country or industry.
Barlett and Ghosal (1989), Doz and Prahlad (1987), Prahlad and Hamel (1990)	Focus on individual firm and theorize strategies for global operations, resource positions, etc., to identify the real sources of their competitiveness.
Barlett and Ghosal (1989), Doz and Prahlad (1987), Hamel and Prahlad (1989)	Emphasized the role of internal factors such as firm's strategy, structures, competencies and capabilities to innovate and other tangible and intangible resources for their competitive success.
Prahlad and Hamel (1996)	They proposed resource-based approach for competitiveness.
Hamel and Prahlad (1993)	Competitiveness arises out of specific initiatives, say, better management, leveraging and stretching of resources.
Porter (1990)	Competitiveness has been synonymous with productivity and is assumed to capture quality and efficiency feature.

the organization is tracking measures that represent progress in executing the strategy. Kaplan and Norton (1992, 1996) popularized two kinds of measures: lag measures that represent results at the end of a time period and often represent historical performance, and lead measures that drive or lead to the performance represented by lag measures. Financial measures are often considered lag indicators and are the reason Kaplan began the discussion about a need for measures that represent progress on strategy.

Another issue popularized by Kaplan and Norton (1992, 1996) was the change in

The balanced scorecard stresses the importance of investing for the future, and not just in traditional areas for investment, such as new equipment and new product research and development.

relationship between tangible and intangible assets in an organization. According to a Brookings Institute study, the book value of tangible assets of U.S. organizations has dropped from 62% of industrial organizations to 10 to 15% of the market value of information age organizations (Blair 1995). Tangible assets include cash, equipment, real estate, and accounts receivable and are managed using financial measures. Intangible assets include customer relationships, innovative products, company routines and processes, employee capabilities, skills, motivation, information technology, and databases. Kaplan and Norton (1992, 1996) argued that it is the intangible assets that create value, and there was no method to measure these assets and link them to the strategy of the organization. The four core perspectives of a balanced scorecard include tangible assets but are focused on the strategy of increasing the value of intangible assets.

The timeline for balanced scorecard tracks closely with the timeline for practices in accounting and finance. Figure 1 is a time-bar of developments in accounting, financial measures, and measurement practices.

The internal processes and routines perspective considers

the efficiency and effectiveness of business processes and routines and are supported by the learning and growth perspective. Kaplan and Norton (1996, 2001) considered four business processes to be critical: innovation, operations, customer management, and regulatory and environmental. Each critical process, according to them, should be linked to organization strategy and measured for success.

The customer perspective is the heart of the strategy (Kaplan and Norton 2001) and sets the direction for how

growth and value will occur. Kaplan and Norton (1996, 2001) considered three categories as critical to

customer acquisition and retention: product and service attributes, customer relationship, and organization image. According to their theory, the customer perspective requires specific strategies about the customer relationship, is supported by the learning and growth and business process perspectives and is the final step in the balanced scorecard's causal equation to increasing stakeholder value and financial performance.

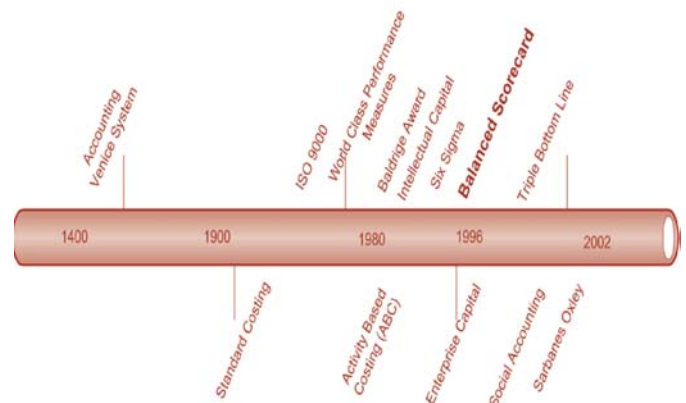


Figure 1: Time-bar of Developments in Performance Measurement
Source: (Christesen 2008)

Using the Balanced Scorecard as a Strategic Management System

As companies around the world transform themselves for competition that is based on information, their ability to exploit intangible assets has become far more decisive than their ability to invest in and manage physical assets.

These are:

- The first process- *translating the vision*- enables companies to track financial results while simultaneously monitoring progress in building the capabilities and acquiring the intangible assets they would need for future growth.
- The second process - *communicating and linking* - let managers communicate their strategy up and down the organization and link it to departmental and individual objectives.
- The third process – *business planning* – enables companies to integrate their business and financial plans.
- The fourth process – *feedback and learning*- gives companies the capacity for what we call strategic learning.

In any case, the scorecard will have stimulated key executives to learn about the viability of their strategy. This capacity for enabling organizational learning at the executive's level – strategic learning – is what distinguishes the balanced scorecard, making it invaluable for those who wish to create a strategic management system.

The balanced scorecard stresses the importance of investing for the future, and not just in traditional areas for investment, such as new equipment and new product research and development. Organization must invest in their infrastructure- people, systems, and procedures- if they are to achieve ambitious long-term financial growth objectives (Kaplan & Norton 1996) and additional approach, suggested by Beer et al. (1996), based on his strategic human-resource-management research, is to substitute text when measurements are undeveloped or unavailable. Kaplan and Norton (2008) have emphasized that successful strategy execution has two basic rules: understanding the management cycle that links strategy and operations, and know what tools to apply at each stage of the cycle.

Flexible Strategy Game-card

The performance of any enterprise is traditionally accounted for purely from the enterprise perspective. Earlier, the dominant performance monitoring systems were centered on financial performance only, which later accommodated certain other areas of performance. The Balanced Scorecard was a step ahead to integrate four major perspectives, viz. financial, customer, internal business process, and learning

and growth.

Though the balanced scorecard appears to be balanced with four perspectives of the strategic performance management system, there are a number of aspects that requires further balancing. Some of the crucial areas that need to be addressed are: (Sushil 2009a),

- Balance of Enterprise and Customer Factors
- Balance of Continuity and Change Forces
- Balance of Reactive and Proactive Drivers
- Balance of Internal and External Actors
- Balance of Internal and External Processes

Though it has included customer orientation to some extent, the major emphasis still remained on the view point of the enterprise on all the four perspectives. In order to get a holistic understanding of performance of an enterprise, minimum two perspectives are proposed to be taken into consideration, i.e. 'enterprise perspective' and 'customer perspective'. This takes into consideration strategy formulation for both higher performance of the enterprise and the provision of enhanced value to its customers. Such a dual perspective of performance in terms of enterprise or provider's perspective and that of the customer or receiver/beneficiary's perspective needs to be synergized in order to get a holistic picture of performance of any system by Sushil (2009b).

Both continuity and change forces define the current reality of the organization, which acts as a basis for the strategy to be formulated in terms of key strategic factors, i.e. enterprise factors and customer factors. The balanced scorecard can be adapted to classify the four perspectives in these two categories of factors. The flexible strategy game-card, rooted into the duality of strategic performance, comprises of two broad perspectives, viz. enterprise perspective and customer perspective.

There is an emergent need for research and development related to concepts of flexibility, and performance management frameworks. Further, it is required to extend these results to academia, industry and government.

The strategy formulation can be carried out in terms of these strategic factors. These factors can be mapped on the strategy landscape both for the existing and the proposed levels. The enterprise perspective is related with SAPP, i.e. Situation (S), Actor (A), Process (P) and Performance (P).

The performance factors are the strategic outcome measures for the strategy. These are the Key Result Areas (KRAs) that are treated as 'lag factors' in the balanced scorecard. These are influenced by the 'lead factors' or Critical Success Factors (CSFs). The performance factors are both financial and non-financial in character. The significant financial performance factors are linked both to the top line and the bottom line, i.e. revenue growth and mix, market share, market value, profitability, risk and cost reduction. There are non-financial performance factors as well, such as cycle time, production turnover, inventory and on-time

delivery. Under the customer perspective, there are generic as well as specific factors. Some generic customer factors are: product/service attributes, customer relationships, and image and reputation. Keeping in view these generic categories, some strategic factors that are offered to customers could be cost, choice, delivery, connectivity, service and speed. In addition to the generic factors, there are contextual customer factors specific to each industry/enterprise/product/service and are to be identified to define the strategy in a given context.

During review of evolution of frameworks of the performance measurement was observed that the flexible strategy game-card can be used for playing the strategy game in terms of strategy formulation as well as execution (Sushil 2010). Some important steps in implementing the game-card include:

- Developing total interpretive strategy map.
- Playing the strategy game in terms of factors and their targets.
- Scoring the performance of game.
- Changing the strategy game.
- It takes the strategic performance management a step ahead in terms of taking both the strategy formulation and execution side by side so as to integrate all the aspects of strategic performance management rather than simply acting as a tool for performance. It integrates the strategic flexibility and performance of an organization.

Directions for Future Research

Flexibility is important at various levels in all the perspectives of the organization. Its very importance is at the organizations to gain competitiveness leading to better organizational performance and this has been increasingly realized. The linkages become more complex as companies grow in terms of revenue and market share. In reality, many problems exist when we start from definition of flexibility to implementation of flexibility to enhance performance of organization. There is an emergent need for research and development related to concepts of flexibility, and performance management frameworks. Further, it is required to extend these results to academia, industry and government.

There are many gaps which were found in the literature review as lack of literature on the role of flexibility and organizational performance; an integrated study about external flexibility and internal flexibility, competitiveness and organizational performance; and a precise framework on how to achieve competitiveness through flexibility route resulting in better performance of the organization.

The following are the research directions that emanated from the literature review process:

- Many studies have been conducted on competitiveness

but there is a need to consider flexibility as a core driver of competitiveness.

- An empirically validated framework emphasizing on flexibility driven and resulting in better performance of the organization needs to be developed.
- Many studies highlighted various types of flexibility of organizations and various competitiveness enhancing frameworks but integrated studies are required that emphasize the ultimate performance of organization.
- A Strategic performance management framework needs to be evolved that is rooted into flexibility and dual perspective of performance.

Conclusion

The literature review points out that the role of flexibility in organization helps to enhance competitiveness and organizational performance. The most important questions that emerged are “why internal flexibility is so important for organizational competitiveness and enhanced performance?” and “how external and internal flexibility will take organizations to higher competitiveness domain and performance?” The answer of first question is incorporating various types of flexibilities. The answer of second question indicates the process which companies have to follow for incorporation of various types of flexibilities in their management processes.

The two main attributes of this research paper have come out from two questions. Flexibility is the process and organizational performance is the result. The title of this paper itself introduces the purpose of studying role of flexibility for enhancing organizational competitiveness and performance.

Many researchers in the area were emphasizing about only competitiveness enhancement of organizations by various routes, not clearly flexibility as need to enhance competitiveness of the organizations. This paper highlighted the gap that this is not only about technology but more about strategic management processes of organizations. The area of flexibility and organization strategy is emerging and needs a lot of attention in order to understand its impact on various management processes within organization leading to enhanced competitiveness and better performance. The flexibility is evolving as the main driver to improve competitiveness and organizational performance.

References

- Aaker D.A. and Mascarenhas B. (1984). The Need for Strategic Flexibility, *The Journal of Business Strategy*, 5(2):74-83.
- Aalst W. (2000). Loosely Coupled Inter-organizational Workflows: Modeling and Analyzing Workflows Crossing Organizational Boundaries, *Information and Management*, 37(2):67-75.
- Abbot A. and Banerji (2003). Strategic Flexibility and Firm Performance: The Case of US Based Transnational Corporations, *Global Journal of Flexible Systems Management*, 4(1&2):1-12.

The flexible strategy game-card can be used for playing the strategy game in terms of strategy formulation as well as execution.



- Achrol R.S. and Kotler P. (1999). Marketing in the Network Economy, *Journal of Marketing*, 63, 146-164.
- Ackoff R.L. (1971). Towards A System of Systems Concepts, *Management Science*, 17(11):661-671.
- Albert S. and Whetten D.A. (1985). Organizational Identity *Research in Organizational Behavior*, 263-95.
- Amor D. (1999). *The E-Business (R) Evolution: Living and Working in an Interconnected World*, Prentice-Hall.
- Ansoff H.I. (1965). *Corporate Strategy: Business Policy for Growth and Expansion*, New York: McGraw-Hill.
- Ansoff H.I. (1978). The Changing Shape of the Strategic Problem, in D. E. Schendel and C. W. Hofer (eds.), *Strategic Management: A New View of Business Policy and Planning*, Boston and Toronto: Little, Brown and Company, 30-44.
- Ansoff H.I. and Brandenburg, R.G. (1971). A Language for Organization Design: Parts I and II, *Management Science*, 17(12):B705-31.
- Bahrami H. (1992). The Emerging Flexible Organization: Perspectives from Silicon Valley, *California Management Review*, 34(4):33-52.
- Barlett and Ghoshal (1989). *Managing Across Border, the Transnational Solution*, Harvard Business School Press, Boston, MA.
- Baumol and McLennan (1985). *US Productivity Performance and its Implications, Productivity Growth and US Competitiveness*, Oxford University Press, New York.
- Beer M., Eisenstat and Biggadike R. (1996). Developing and Organization Capable of Strategy Implementation and Reformulation, in *Organizational Learning and Competitive Advantage*, Sage, London.
- Bhat J.S.A. (2010). Managing Innovation: Understanding How Continuity and Change are Interlinked, *Global Journal of Flexible Systems Management*, 11(1&2):63-74.
- Blair M.B. (1995). *Ownership & Control: Rethinking Corporate Governance for the Twenty-first Century*, Washington, DC: Brookings Institute.
- Boardman J. and B. Sauser (2006). System of Systems – The Meaning of Of, *IEEE International System of Systems Conference*, Los Angeles, CA.
- Borru (1983). Trade and Development in the Semiconductor Industry: Japanese Challenges and American Response, American Industry in *International Competition*, Cornell University Press. Ithaca, New York.
- Bromiley P. and Cummings L.L. (1989). Transaction Costs in Organizations with Trust, The Strategic Management Research Center, University of Minnesota, Discussion Paper #128, December, 1989.
- Buckley A. (1997). Valuing Tactical and Strategic Flexibility. *Journal of General Management*, 22(3), 74-79.
- Buckley P.J. and Casson M.C. (1998). Models of the Multinational Enterprise, *Journal of International Business Studies*, 29(1):21-44.
- Burke W.W and Trahan B. (2000) *Business Climate Shifts: Profiles of Change Makers*, Butterworth Heinman, Boston, MA
- Burnes B. (1992) *Managing Change: A Strategic Approach to Organizational Development and Renewal*, Pitman Publishing, London.
- Byrd T.A. and Turner D.E. (2001). An Exploratory Examination of the Relationship between Flexible IT Infrastructure and Competitive Advantage. *Information and Management*, 39, 41-52. Cambridge, U. K., 291-298.
- Chesnais (1986) and Papadakis (1994). Did (or does) the US have a Competitiveness Crisis? *Journal of Policy Analysis and Management*, 13(1):1-20.
- Christensen L.T. and Cheney G. (2000). Self-absorption and Self-seduction in the Corporate Identity Game. In Schultz M., Hatch M.J. and Larsen M.H. (Eds). *The Expressive Organization: Linking Identity, Reputation and the Corporate Brand* New York: Oxford University Press, 246-270.
- Christesen D.A. (2008). *The Impact of Balanced Scorecard Usage on Organization Performance*, Unpublished Ph.D Dissertation, University of Minnesota, Minneapolis, MN.
- Clemons E.K. and Row M. (1991). Sustaining IT Advantage: The Role of Structural Differences. *MIS Quarterly*, 15(3):275-292.
- Collins J.R. and Porras J.I. (1994). *Built to Last*, Harper Collins: New York.
- Contractor F.J. and Lorange P. (2002). The Growth of Alliances in the Knowledge-based Economy. *International Business Review*, 11: 485-502.
- D'souza D.E. and Williams F.P. (2000). Toward a Taxonomy of Manufacturing Flexibility Dimensions. *Journal of Operations Management*, 18(5):577-593.
- Davidson W. (1999) Beyond Re-Engineering: The Three Phases of Business Transformation. *IBM Systems Journal*, 38(2/3), 485-499.
- Doz and Prahalad C.K. (1987). *The Multinational Mission*, The Free Press, New York
- Dreyer B. and Gronhaug K. (2004). Uncertainty, Flexibility and Sustained Competitive Advantage. *Journal of Business Research*, 57, 484-494.
- Duysters G., Kok G. and Vaandrager M. (2000). Crafting Successful Strategic Technology Partnership. *R&D Management*, 29(4):343-351.
- Eppink D.J. (1978). Planning for Strategic Flexibility. *Long Range Planning* 11(4):9-15.
- Evans J.S. (1991). Strategic Flexibility for High Technology Manoeuvres: A Conceptual Framework. *The Journal of Management Studies*, 28(1): 69-89.
- Fletcher S. and Olwyler K. (1997). *Paradoxical Thinking*, Berret-Koehler Publishers, San-Francisco.
- Genus A. (1995). Walls and Bridges: Towards a Multi-Disciplinary Approach to the Concept of Flexibility. *Technology Analysis and Strategic Management*, 7(3):287-306.
- Gioia D.A. (1998). From Individual to Organizational Identity. In Whetten, D. A. and Godfrey, P.C. (Eds) *Identity in Organizations: Building Theory through Conversations*. Thousand Oaks, CA: Sage, 17-32.
- Gorod A., Gandhi J.S, Sauser B and Boardman J (2008). Flexibility of System of Systems. *Global Journal of Flexible Systems Management*, 9(4):21-31.
- Grewal R. and Tanshuhaj P. (2001). Building Organizational Capabilities for Managing Economic Crisis: The Role of Market Orientation and Strategic Flexibility. *Journal of Marketing*, 65, 67-80.
- Gronhaug K. (1999). Technological Flexibility and Organizational Buying Strategies, *European Journal of Purchasing and Supply Management*, 5, 13-22.
- Gupta L.C. (1983). *Financial Ratios of Monitoring Corporate Sickness: Towards a More Systematic Approach*, Oxford University Press, New Delhi.
- Gustafson L.T. and Reger R.K. (1995). Using Organizational Identity to Achieve Stability and Change in High Velocity Environments'. *Academy of Management Journal*, 38, 464-9.
- Hamel, Gary, Doz, Yves L. and Prahalad C.K. (1989) Collaborate with Your Competitors and Win. *Harvard Business Review*, 67(1):133.
- Hamel G. and Prahalad C.K. (1993). *Strategy as Stretch and Leverage*, HBR, 77 (2), March-April, 75-84. NU
- Hamel Gary and Prahalad C.K. (1996). Competing in the New Economy: Managing Out of Bounds. *Strategic Management Journal*, 17(3):237.
- Hammer M. and Champy J. (1994) *Reengineering the Corporation: A Manifesto for Business Revolution*, Nicholas Brealey, London.
- Handy C. (1994). *The Age of Paradox*, Harvard Business School Press, Boston.



Harrigan K.R. (1985). *Strategic Flexibility : The Economics of Strategic Planning*, Lexington, Massachusetts, Lexington Books.

Hays and Wheelright (1983). *Restoring our Competitiveness Edge: Computing through Manufacturing*, New York, John Wiley and Sons.

Henderson R and Mitchell W. (1997). The Interactions of Organizational and Competitive Influences on Strategy and Performance. *Strategic Management Journal*, 18(1):5-14.

Hitt M.A., Keats B.W. and DeMarrie, S.M. (1998). Navigating in the New Competitive Landscape: Building Strategic Flexibility and Competitive Advantage in the 21st Century. *Academy of Management Executive*, 12(4):22-42.

Jain P.K. and Sushil (2000). Financial Flexibility for Corporate Performance, In *Cornerstones of Enterprise Flexibility*. Global Institute of Flexible Systems Management, Vikas Publishing House, New Delhi.

Johnson J.L., Lee R.P., Saini A. and Grohmann B. (2003). Market-Focused Strategic Flexibility: Conceptual Advances and an Integrative Model. *Journal of the Academy of Marketing*, 31(1):74-89.

Kaplan R.S. and Norton D.P. (1992). The Balanced Scorecard: Measures that Drive Performance, *Harvard Business Review*, 70, 71-9.

Kaplan R.S. and Norton, D.P. (1996). Using the Balanced Scorecard as a Strategic Management System, *Harvard Business Review*, 74, 75-85.

Kaplan R.S. and Norton D.P. (2001). *The Strategy-focused Organization: How Balanced Scorecard Companies thrive in the New Business Environment*, Boston, MA: Harvard Business School Press.

Kaplan R.S. and D.P. Norton (2008). Mastering the Management System. *Harvard Business Review* (January):62-77.

Katz E. and Kahn R.L. (1966). *The Social Psychology of Organizations*, Wiley, New York.

Kieser A. (1969). Zur Flexibilitat verschiedener Organisationsstrukturen. *Zeitschrift fur Organization*, 38, Oct.-Nov. 273-82.

Krijnen H.G. (1979). The Flexible Firm. *Long Range Planning*, 12, Apr., 63-75.

Krugman P. (1983). New Theory of Trade and Industrial Countries. *American Economical Review*, 73(2):343-347.

Krugman P. (1986). *Introduction to new Thinking about Trade Policy, Strategic Trade Policy and the New International Economies*, MIT Press. Cambridge.

Krugman P. (1987). *Strategic Sectors and International Competition, The US Trade Policies in Changing World Economies*, Mass, MIT Press, Cambridge.

Kulatilaka Nalin (1993). The Value of Flexibility: The Case of Dual-Fuel Industrial Steam Boilers. *Financial Management*, (Autumn), 271-280.

Lau R.S.M. (1996). Strategic Flexibility: A New Reality for World-Class Manufacturing S.A.M. *Advanced Management Journal*, 61(5):11-15.

Leana C.R. and Barry B. (2000). Stability and Change as Simultaneous Experiences in Organizational Life. *Academy of Management Review*, 25, 753-59.

Leeuw T. de and Volberda H.W. (1996) On the Concept of Flexibility: A Dual Control Perspective. *OMEGA*, 24 (2):121-139.

Malhotra, Y. (2001). *Enabling Next Generation e-Business Architectures: Balancing Integration and Flexibility for Managing Business Transformation*: Brint Institute.

Mascarenhas S. (1982). Electron Spin Resonance Dating of Human Bones from Brazilian Shell-mounds (Sambaquis), *American Journal of Physical Anthropology*, 159, 413-417.

Matusik S.F. and Hill C.W.I. (1998). The Utilization of Contingent Work, Knowledge Creation and Competitive Advantage. *The Academy of Management Review*, 23(4):680-697.

McKenzie J. (1996). *Paradox: The Next Strategic Dimension*, McGraw-

Hill, Berkshire

Miller D. (1990). *The Icarus Paradox: How Excellent Organizations Can Bring About Their Own Downfall*, Harper Business, New York.

Mintzberg H. (1987). Crafting Strategy, *The Harvard Business Review*, July-August, 66-75.

Mintzberg H. (1988). Crafting Strategy. *The McKinsey Quarterly*, Summer, 71-90.

Mintzberg H., Ahlstrand B. and Lampel J. (1998). *Strategy Safari: The Complete Guide, through the Wilds of Strategic Management*, Pearson Education: Singapore.

Momaya K. (2001). *International Competitiveness: Evaluation and Enhancement*, 1st edn., Hindustan Publishing Corporation (India).

Nadkarni S. and Narayanan V.K. (2004). Strategy Frames, Strategic Flexibility and Firm Performance: The Moderating Role of Industry Clockspeed. *Academy of Management Proceedings*.

Nelson K.M., Nelson H.J. and Ghods M. (1998). Measuring the Effectiveness of a Structured Methodology: A Comparative Analysis. *Hawaii International Conference on System Sciences*, Kohala Coast, HI.

Newman D.J and Urban W (1972). *J. Phys. C: Solid St. Phys.* 5, 3101-9.

Oliver R.W. (2001) Real-time Strategy: What is Strategy, Anyway? *The Journal of Business Strategy*, 22(6), 7-10.

Papazoglou M.P., Ribbers P. and Tsalgaidou A. (2000). Integrated Values Chains and their Implications from a Business and Technology Standpoint, *Decision Support Systems*, 29, 323-342.

Parsons G.L. (1983). Information Technology: A New Competitive Weapon, *Sloan Management Review*, 25, 3-14.

Parnell J.A. (1994). Strategic Consistency Versus Flexibility: Does Strategic Change Really Enhance Performance? *American Business Review*, 12(2): 22-29.

Parnell J.A. (2003). Five Critical Challenges in Strategy Making. *S.A.M. Advanced Management Journal*, 68(2):15-22.

Pascale R.T. (1990). *Managing on the Edge: How Successful Companies Use Conflict to Stay Ahead*, Viking Penguin, London.

Pettigrew A.M., Woodman R.W., and Cameron K.S. (2001). Studying Organizational Change and Development Challenges for Future Research. *Academy of Management Journal*, 44, 697-713.

Phan D.D. (2001). E-Business Management Strategies: A Business-to-Business Case Study. *Information Systems Management*, 18(4):61-69.

Porter M. (1980). *Competitive Strategy: Techniques for Analysing Industries and Competitors*, The Free Press, New York.

Porter M. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*, The Free Press, New York.

Porter M. (1990). The Competitive Advantage of Nations. *Harvard Business Review*, 68(2):71-91.

Porter M. (2001). Strategy and the Internet. *Harvard Business Review*, 79(3):62-78.

Prahalad C.K. and Hamel G. (1990). The Core Competences of Corporation, *Harvard Business Review*, 79-80

Reichwald R. and Behrbohm P. (1983). Flexibility as Property of Production Systems (Flexibilitat als Eigenschaft Produktionwirtschaftlicher Systeme), *Zeitschrift für Betriebswirtschaft*, 53(9):831-853. (In German.)

Roberts N. and Stockport G.J. (2009). Defining Strategic Flexibility, *Global Journal of Flexible Systems Management*, 10(1):27-32.

Saboohi and Sushil (2010). Managing Continuity and Change: A New Approach for Strategizing in e-Government. *Transforming Government: People, Process and Policy*, 4(4):338-364.

Sanchez R. (1995). Strategic Flexibility in Product Competition. *Strategic Management Journal*, 16:135-159.



- Scott and Lodge (1985). US Competitiveness in the World Economy, Boston, *Harvard Business Review*.
- Scott Morton M.S. (1991). *The Corporation of 1990s*, Oxford University Press, NY.
- Sethi A.K. and Sethi S.P. (1990). Flexibility in Manufacturing: A Survey, *International Journal of Flexible Manufacturing Systems*, 2(4):289-328.
- Sherman H., Rowley D.J. and Armandi, B.R. (2007). Developing a Strategic Profile-the Pre-planning Phase of Strategic Management. *Business Strategic Series*, 8(3):162-171
- Shi D. and Daniels R.L. (2003). A Survey of Manufacturing Flexibility: Implications for e-Business Flexibility. *IBM Systems Journal*, 42(3):414-426.
- Simons R. (1995). *Levers of control: How Managers Use Innovative Control Systems to Drive Strategic Renewal* (Boston: Harvard Business Press, 1995).
- Slack N. (1983). Flexibility as a Manufacturing Objective. *International Journal of Operations and Production Management*, 3(3):4-13.
- Stohr E. A and Muehlen M.Z. Gupta (2008) Business Process Management: Impact on Organizational Flexibility, *Global Journal of Flexible Systems Management*, 9(4):3-5.
- Sturdy A. and Grey C. (2003). Beneath and Beyond Organizational Change Management: Exploring Alternatives, *Organization*, 10, 651-62.
- Sushil (1997). Flexible Systems Management: An Evolving Paradigm, *Systems Research and Behavioral Science*, 14(4):259-275
- Sushil (1999). Flexibility in Management. *Global Institute of Flexible Systems Management*, Vikas Publishing House, New Delhi.
- Sushil (2000). Systemic Flexibility, *Global Journal of Flexible Systems Management*. 1(1):77-80.
- Sushil (2005). Flexible Strategy Framework for Managing Continuity and Change. *International Journal of Global Business & Competitiveness*, 1(1):22-32.
- Sushil (2008). The Concept of a Flexible Enterprise. *Proc. of Eighth Global Conference on Flexible Systems Management, GLOGIFT 08*, Stevens Institute of Technology, Hoboken, NJ, June 14-16, 2008, pp18-35.
- Sushil (2009). Managing in Uncertain Times: Coping with Flexibility. *GROWTH*, April-June 2009, Foundation Day Special Issue, 61-68.
- Sushil (2009a). Is Balanced Scorecard a Balanced Strategic System. *Drishti-Insight, Publication of ARTDO International, Philippines*, Oct., 34-40.
- Sushil (2009b). The Dual Perspective of Performance. *Global Journal of Flexible Systems Management*, 10(4).
- Sushil (2010). Flexible Strategy Game-card. *Global Journal of Flexible Systems Management*, 11(1&2).
- Tannenbaum R. and Hanna R.W. (1985). Holding on, Letting Go, and Moving on: Understanding a Neglected Perspective on Change. In Tannenbaum R., Margulies Massarik F., et al. (Eds), *Human Systems Development*, Jossey-Bass: San Francisco.
- Teece D.J., Pisano, G. and Shuen A. (1997) Dynamic Capabilities and Strategic Management, *Strategic Management Journal* 18(7):509-533.
- Trigeorgis L (1993). Real Options and Interactions with Financial Flexibility, *Financial Management*, Autumn 202-223.
- Tushman M.L. and Anderson P. (1997). *Managing Strategic Innovation and Change*, Oxford University Press, New York.
- Tyson L.D. (1988). *Making Policies for National Competitiveness in a Changing World, Cooperation and Competition in the Global Economy*, Ballinger Publishing Co. Cambridge.
- Tyson L.D. (1992). *Who's Bashing Whom?* IIE, Washington D C.
- Upton D.M. (1995). Flexibility as Process Mobility: The Management of Plant Capabilities for Quick Response Manufacturing. *Journal of Operations Management*, 12(3&4):205-224.
- Vernon R. (1966). International Investment and International Trade in the Product Cycle. *Quarterly Journal of Economics*, 80, 190-207.
- Volberda H.W. (1996). Towards the Flexible Form: How to Remain Vital in Hypercompetitive Environments. *Organization Science* 7(4):359-387.
- Volberda H.W. (1997). Building Flexible Organization for Fast Moving Markets, *Long Range Planning*, 30(2):169-183.
- Volberda H.W. (1998). *Building the Flexible Firm: How to Remain Competitive*, Oxford University Press: UK.
- Volberda H.W. and Rutges A. (1999). FARSYS: A Knowledge-based System for Managing Strategic Change, *Decision Support Systems* 26(2): 99-123.
- Weick K.E. (1982). Management of Organizational Change among Loosely Coupled Systems, In P. Goodman and Associates (Ed.). *Change in Organizations: New Perspectives on Theory, Research, and Practice*. San Francisco, CA: Jossey-Bass, 375-408.
- Wireless news (2007). www.gsmworld.com/news/press_2006/press_06_29.shtml



Key Research Questions

1. How different types of flexibility are interrelated?
2. How flexibility can be used to enhance organizational performance?
3. Which recent trends in management can be traced having roots in the flexibility concept?



Manoj Kumar Sharma is an alumnus of Delhi College of Engineering and IIT Delhi, having Bachelor and Masters Degree in Engineering with First Class with Distinction, MBA and Ph.D. in Management (Strategic Management and Telecom area) from IIT Delhi. He has experience of 24 years of in various capacities as a contributor and learner, in Academics, Industry and Government as Teacher, Manager, Advisor and National Policy Analyst. He is founder Chairman and CEO (BrainsTree & Company: A Telecom Management Consulting Company) / Member on Board of Centre of Excellence in Information Management established by European Union (EU) at Management Development Institute (MDI). In academics he is contributing as Honorary Professor of Management at Delhi School of Management, Delhi Technological University (formerly Delhi College of Engineering)/ Honorary Professor at CDAC (Centre for Development of Advance Computing (Ministry of IT and Communication, Govt. of India) / Editor "Global Journal of E-Business and Knowledge Management" / On Expert panel for selection of senior faculty in area of "Strategy" for leading business school of India/ Chief Examiner of Engineering for State Public Service Commission of Government. His other academic work and related experience includes Honorary Professorships at IIMs/ National Academy for Training for Social Security and Research, Ministry of Labour & Employment, Govt. of India / Department of Personal and Training (Govt. of India). He has organized 3 International Conferences as Chief Convenor and Conducted study in 6 countries on "Global e-Governance practices: Implications and Lessons" and Edited 2 International Conference on Flexible Systems Management. He has also served in Government as Advisor (IT & E-Governance) (NOIDA, Govt. of UP) / On board of directors of companies / Advisor (Information Technology Management & E-Governance) (Income Tax Deptt. Govt. of India) as Member of the National Council (NCVT, an apex policy making body), Ministry of Labour & Employment, Govt. of India.



Sushil is a Professor of Strategic, Flexible Systems and Technology Management at the Department of Management Studies, Indian Institute of Technology Delhi. He served as Visiting Professor at The Center for the Development of Technological Leadership, University of Minnesota, Minneapolis, MN, USA in the year 2008-09. He has twelve books to his credit in the areas of Flexibility, Systems Thinking, and Technology Management. He has over 200 papers in various refereed journals and conferences. He has pioneered the area of 'Flexible Systems Management' and made original contributions to the field of knowledge in the form of SAP-LAP models and linkages. He has evolved the concept and framework of 'Flowing Stream Strategy' as strategic flexibility to manage continuity and change. He has also provided mantras for continuous organizational vitalization and a model for execution excellence. He has acted as consultant to both governmental and private industrial organizations; a few representative ones are LG Electronics, Rockwell International, Tata Consultancy Services, Tata Infotech Ltd., CMC Ltd., James Martin & Co., Gas Authority of India Ltd. and Sona Koyo Steering Systems. He is the Founder President of the Global Institute of Flexible Systems Management.



Pramod K. Jain is a Professor of Finance & Group Chair, Financial Management. He earlier served as the Head of Department of Management Studies. He is Modi Foundation Chair Professor also. Earlier, he had been Dalmia Chair Professor and Co-ordinator of Dalmia Research Programme on Management in Asia. He has teaching experience of more than 35 years in subjects related to Finance and Accounting. He has conducted many On-line & Off-line Management Development Programs on Finance for Non-Finance Executives as well as for Finance Managers of both public and private sector enterprises. He has taught at the University of Paris 1, School of Management, Asian Institute of Technology, Bangkok and Howe School of Technology Management, Stevens Institute of Technology, New Jersey; he is visiting faculty at I.C.P.E, Ljubljana, Slovenia to teach in its MBA (International) programme. He has authored/co-authored nearly two dozen text books and research books in areas of finance and accounting. He has published more than 130 research papers in national and international Journals. He has been associated with several research and consultancy projects in the field of Finance. His contributions in the field of Finance have been recognized at national and international levels and several awards and recognition have been conferred on him.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.