Title of the Paper: The Dynamics of Innovation in Organisations: An Organismic-Interactive-Contextual Model

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Abstract

Innovations in organization provide a strategic and a competitive advantage that ensures long survival of the organization. Innovation in organizations is a unique phenomenon in that in the normal process of organizations there are no fertile grounds that stimulate innovations. The precise mechanisms and processes that lead to this facet of the organizational processes are not yet clearly understood. In this paper an Organismic-Interactive-Contextual Model is proposed that attempts to incorporate the key processes that result in innovative ventures. In the systemic thinking approach the inner body of the organization plays a predominant part in steering the path of innovation and this inner body is constituted by individuals and groups. The organismic processes are unique to the individual and the significant psychological processes play a dominant role in the emergence of innovation. In the psychology of motivation, the motivated behavior originates from either growth motivation or deficiency motivation. Besides, knowledge support systems fall into computer facilitated inputs and the cognitive processes of the innovator. Secondly group interactive mechanisms hold the key in situations of team work. The significant internal processes that accentuate the innovation are the leadership processes, team structure, and learning organization culture. Moreover the contextual processes or extraorganisational considerations provide the background to innovation. Innovation is further enhanced by organizational processes and more specifically it is mediated by structural processes. And finally the innovative processes differ in small and medium sized enterprises and large enterprises.
Innovation process in organization assumes significance in the modern day business because it is one of the strategic activities that assure a competitive advantage to the organization in the long run. Innovation is the need of the hour in the sense that those who fail to innovate in response to changing times, simply go out of business. Innovation in organizations is a unique phenomenon in that in the normal process of organizations there are no fertile grounds that stimulate innovations. All organizations have recognized the truism that is innovate or liquidate. Creating and managing innovation have many dimensions that pervade the entire arena of the organization. Innovation may be understood as transforming a creative idea into a new and useful product/service (Robbins and Coulter, 2002). What constitutes the mechanism of innovation or what stimulates innovation is not exactly understood. Managers are generally puzzled by the nature of the dynamics of innovation and there is a surprisingly clear absence of understanding of the innovation processes in organizations (Zhuang, et al, 1999) and managers fail to encourage it positively within the organization. The contingent conditions that lead to the emergence of innovations are a combination of processes that stem from the inner and outer dynamics of organization. In this paper an attempt is made to understand the nature and dynamics of innovation from the perspective of a new model that leads to innovation.

**Theoretical Background of the Study**
Creativity is at the heart of innovation but creative individuals, groups and organizations (Robbins and Coulter, 2002) alone will not encourage innovation. It means that there is a need to further broaden the mechanism of innovation. Individuals, groups and organizations form an integral part of innovation and it calls for an integrated organizational approach to innovation that involves skills at the levels of individual, group and organizations like leadership, team working and learning to learn (Roffe, 1999). Emphasis upon intraorganisational processes and stimulating the key variables constituted by creative individuals, groups organizations (Woodman, et al, 1993) and the extraorganisational processes would go a long way in enhancing the innovative pace in organizations. Robbins and Coulter (2002) have identified the intraorganisational variables as structural, cultural and human resources. Desmond (2009) suggested quality processes and structural approach to bring about radical changes in the staff so as to accentuate innovation in organizations.

Taking a different approach based on the analysis of individuals, groups and extraorganisational processes, an organismic-interactive- contextual model (OICM) is proposed. It is in this context that systemic thinking is suggested to understand, explain and predict innovation in organizations (Johannessen, 1998). In the systemic thinking approach the inner body of the organization plays a predominant part in steering the path of innovation and this inner body is constituted by individuals and groups. The reasoning behind this model is that understanding the nature of the inner mechanisms will open the way to innovative activities in the organization. The dynamics and processes of this inner body are made up of the specific organismic processes of key individuals who form a part of the innovative ventures. The innovation process begins in the individual and for this to happen, one has to look for individuals who show processes prone to innovation. Innovation proneness is thus a unique constellation of the individual mechanisms that
clearly point to the psychological processes of the individual. These psychological processes are the product of innate tendencies and acquired experiences and together they lay the foundation of individual innovation processes. As it is clear innovation processes differ from individual to individual which are reflected in the organismic tendencies.

Group processes are characterized by the interactional activities of individuals with innovation proneness. Individuals in the group/team context are primed to behave in different ways in comparison to solitary pursuit of innovation. Group processes are characterized by a number of different influences that emerge from the structural-functional areas like vertical–horizontal relations, leadership, decisionmakings, communication patterns, power relations and conflictual tendencies. It implies that as the quality of group mechanisms change from positive to negative, the innovation spirit of the organization also changes from negative to positive. The group characterized by cohesiveness, cooperation, joint goal settings, participative decision makings and related productive processes push the group towards innovation, thereby transforming the group and the organization.

OICM may be conceived in two views, a macro and a micro. In the macro view, Fig.1, the three related components of individual, group and extraorganisational processes lead to the path of innovation. Conceptualising innovation from a macro perspective facilitates easy understanding of the innovation mechanisms. Moreover it enables quick fixing of the innovation problems faced by the organization. In the micro view, Fig.2a, b and c a finer differentiation of the components in each facet of innovation is delineated. The detailed considerations of the organismic processes in the individual, the interactive group mechanisms and the contextual influences that develop and maintain become micro considerations since its origin and expressions are centered on specific and distinct processes.
Organismic Processes

Individual processes lay the foundation of innovation in organizations and the presence of positive processes unleashes innovative activities. In the psychology of motivation, the motivated behavior originates from either growth motivation or deficiency motivation. Growth motivation is sourced at positive tendencies of contentment, positive self regard and feelings of high self-esteem whereas deficiency motivation is sourced at discontentment, dissatisfaction, feelings of inadequacy
and low self-esteem. It can be generally stated that the growth motivation is characterized by self-
actualizing tendencies and the deficiency motivation is dominated by compensatory mechanisms so
as to reduce the deficiency felt at the psychological or physiological levels. Deficiency motivation
can form a base of innovation in that individuals are sometimes driven by compensatory activities
of innovation in comparison to individuals driven by positive motivation. In the straight method of
comparison, individuals are acutely sensitized to the deficiency in their lives. And this deeply felt
deficiency triggers the sort of negative motivation that assumes the pattern of counteracting and
compensatory behaviors.

Knowledge support implies the use of theoretical and practical knowledge in the varied
attempts to reduce the depth of deficiency motivation. Innovation generally is to take place from
something that is existing and that something in most cases happens to be knowledge plus a product
and/or service. Knowledge provides the leverage which is intelligently transformed into a form of
innovation that becomes enduring in the society.
Knowledge support systems fall into computer facilitated inputs and the cognitive processes of the innovator. Computer programmed knowledge enables the innovator to try out different possibilities in quick succession and the innovator may easily come out with new product designs and service technologies. Information technology capabilities are to pave the way for greater innovation (Chen et al, 2009). Time, distance, space and the boundaries across individuals, departments and organizations are made irrelevant following revolutions in the area of IT (Daft, 2009). The challenge offered by IT is to develop collaborative knowledge that facilitate innovation.
Collaborative knowledge can be built up by drawing upon multiple knowledge streams from persons, places and disciplines. That is IT enables comprehensive analysis and synthesis of knowledge that results in early problem resolution marking unique areas of operation.

Absorptive capacity has been identified to be an intervening factor in knowledge development and innovation (Liao, 2007). The individual member(s) is to absorb or assimilate the new knowledge and integrate it with the existing knowledge leading to a breakthrough that result in an innovative product/service. Critical reflection, another pertinent process is also thought to contribute to knowledge generation and innovation (Baldwin, 2008). It is the emergence of constructive and critical reflection that opens up new areas of exciting opportunities for an innovator. Constant questioning of assumptions (Daft, 2000) that is critical reflection and unconventional way of doing things bring forward new realms of innovation.

In the innovator cognitions, the innovator cognitively combines and recombines concepts, formulates hypothesis and ideas leading to the generation of unique ideas that propel the nature of innovation in new directions. Innovator cognitions are primarily generated from an extensive and intensive use of cognitive strategies of induction and deduction, concept formation, probability estimation and utilitarian considerations.

Creativity is a predominant feature of innovative tendencies and creativity precedes innovation. In other words when innovation succeeds creativity, it can be stated that they are closely interlinked. The interlink between the two is such that a creative idea becomes a product/service in the innovative phase.

Creativity is a unique gift that certain individuals are endowed with it and that the expression of creativity is a rare phenomenon. The well known stages of creativity –preparation,
incubation, illumination and verification underline that creativity that either implies convergent production or divergent production are not equally distributed in organizations. The individual brings forward a unique and unconventional idea that would be of some definite use to the consumer world.

In the goal-directed behavior the goals pursued by the individual stem from the interaction of individual and organizational processes. The organizational objectives are to be assimilated by the individual and made his own so as to present with no incompatibility that may block innovation processes. Once the alignment of goals is made possible the individual has to have the readiness to encompass the goals in totality. Following the assimilation process, the individual is to further evolve the details, plans and procedures of attaining the goals in a stipulated period of time. Identification of the steps of goal directed behavior involves specifying the resources, time, people, method and place all of which contribute to goals in a substantial manner.

According to the goal setting theory intentions that form the source of goal motivate the individual to greater work. Intentions, that take shape within the individual before the modalities of goal directed behaviors are set, act as an internal force that forces the individual to search for alignment between individual and group goals.

Finally goal accomplishment is underlined by commitment, self-setting processes, goal clarity and moderately difficult goals. Individuals show higher motivation when goals are self-set (Tubbs, 1993) in comparison to higher ups deciding the goals. The success of MBO programmes, a way to boost innovation in organization, thus depends upon the process of joint goal setting in which top management and lower management discuss and mutually agree upon the goals.
Developing commitment is another way to increase motivation to goals. As the individual works out the details and spends time on the objectives, commitment starts developing in the individual so that he never leaves the goal-related situation.

Goal clarity means the existence of specific and unambiguous goals which are well understood by the individual. Clarity enables the individual to choose the best path available to reach the goal. And finally moderately difficult goals provide greater challenge and inspiration and that is more so in an innovative context.

**Interactive Processes**

The internal organizational processes contribute to facilitating innovation as far as the processes directly influence it and steer the course. The significant internal processes that accentuate the innovation are the leader-member processes, team structure, interpersonal processes, social exchanges, group structure and learning organization culture.

![Interactive Processes Diagram](image)
Leadership processes in a significant way direct and guide the nature of innovation that is whether innovation is actually taking place (Elenkov and Manev, 2005) in the organization. The leadership pattern of influence that is relevant in the innovation process is transformational one. Transformational leaders become the catalyst of innovation in that they orient the members to look at old problems in new ways and they also encourage the members to question the status quo (Daft, 2001). It can be stated that when transactional leaders are effective in the conventional field of operation, transformational leaders are effective in the unconventional field of innovation. Transformational leaders become instrumental and the source of inspiration in bringing about innovations in organizations. In the transformational influence the leader who is heading either the organization or the division attempts to bring about drastic and fundamental changes that enable the members to be autonomous, self-directed and inspired by intrinsic forces. The transformational leader presents himself as the change agent of reorienting the thinking of the members so that they are able to separate the efficient and effective behavior from the ineffective and inefficient ones. In the transformational context, the productivity of the members shoot up and that member come to understand the vision of the leader. The intellectual stimulation instilled by the leader acts in the way that they are able to show convergent and divergent thinking in encountering innovation situations.

The team structure is the organizing process to be followed to enhance the innovation spirit. In effective work teams, members come to acquire strong and enduring interpersonal work relations that they share knowledge, skills and come to have common attitudes.

Hovemeyer (1993) has brought out the ways teams are to be made effective. First of all team mission is of paramount importance and that teams that have a clear and well articulated mission tend to put up unified activities and they tend to be cooperative. Team mission enables the
members to be conscious of the purpose to which they are moving. Secondly consequent to the mission, members of the team are always on the path of goal achievement. The team goals become the centre of their activity. Thirdly, teams are to be empowered so as to make them independent, free from interferences. In the empowered teams, effective decisions are made. Team decision-making reduces decision failures that make decisional outcomes certain. Fourthly, open and honest communication in team relationships removes areas of clouds besides making team functions transparent and accessible to all. In team work in the practicing of free communication, doubts and clarifications with respect to different work issues can be sorted out that facilitates the accomplishment of outcomes. And finally developing positive roles and norms results in role clarity and effective patterns of behavior. Fitting and right roles in the team avoid team conflict and uncertainties in performance areas. Each member works according to the preassigned and preordered roles, all of which make the team activity highly cohesive, interlinked and mutually supportive.

The advantage that rests with an effective team structure is the cohesiveness of the group. Cohesion is marked by a ‘we’ feeling and the members feel that they stay together (Myers, 1993) and that they are all part of an indestructible unity. Group cohesiveness is a predictor of performance gains and organizational commitment such that highly cohesive group shows increased performance and greater commitment to the task (Wech, et al, 1998). Further it is moderated by orientation to task or non-task and the strength and the practice of work group norms (Langfred, 1998). If the team members can be positively oriented and energized to innovative tasks, fruition of innovation is a natural outcome. Thus team structure happens to be the ideal structure for innovations in organizations and the synergic effects associated with team make innovation fast, useful and value additive.
Learning organizations are perpetually involved in the task of continuous learning, improvement, development and innovations. The culture of the organization is so fashioned that they are always on the track of learning that gives them a clear and systematic competitive advantage over other organizations that do not show the learning context. Learning organizations demonstrate openness to problems and they show the willingness to confront unusual and novel situations of work. Learning organizations are guided by visions and objectives that have a sacred place in the lives of the employees and they are primarily directed by it. The generative learning characteristic of learning organizations makes them to engage in critical reflections and deliberations leading to unraveling of business functions and efficiency. The positive and the constructive approach change the processes in the productive way transforming the organization along amazing paths. This innovations and radical way of doing things become the hallmark of learning organizations.

Organizational learning culture is found to be leading to successful innovation (Maria, 2003) which means that a facilitative learning culture is a prerequisite and a precondition for innovation to take place. Organizations that facilitate a learning environment, an environment characterized by proactive learning generate the spirit of innovations in organizations. Learning always involves change and there is a transition from an old state to a new state and in that process individual and group processes play a major part that is organizational learning process is contingent upon individual cognitions and group interactive behaviors. Moreover innovative learning culture depends upon the contextual and the practical usage of innovation rather than the individual likes and dislikes (Maria, 2003). A context that encourages innovation from the real life basis is bound to be productive than the context that superficially deals with the innovation process.
Contextual Processes

Over and above the intraindividual and intra organizational processes, the contextual or the external environmental variables decidedly influence the process of innovation within the organization. Innovation that takes place within a country is a reflection of the nature of external environment. In the scanning of the environment, the individuals and the organization (boundary spanners) segregate the favorable and the unfavorable components of the environment and if there are favorable components that facilitate innovation, it can be stated that contextual variables play a decisive role in furthering innovation in the organization.

The best form of political processes that induce innovation is the democratic set-up wherein there is enough freedom of speech, thought and action. Democracy in its inclusive orientation encompasses the general and the specific population with its characteristics and in that processes the government of the country sees to it that innovative talents and spirits of the people are encouraged at all costs. The intellectual freedom provided by democratic governments creates an environment for research and experimentation. Innovations flourish in a free environment.

Economic freedom involves creating a favorable investment climate for the creative who in turn become the idea champions. The idea champions are the pioneers or the path-finders in any field of enterprise. With single minded devotion, idea champions pursue novel ideas and bring forward something that is useful to the society. Economic freedom is felt in the form of tax concessions interest free loans and other monetary concessions to organizations. It is clear from the
sudden growth that the Indian economy underwent following liberalization that a constricted and controlled economic environment hampers growth and innovation. That means a free economic environment signals innovative activities in a country or organization.

Free market, a natural corollary to economic freedom provides unlimited opportunities to marketing personnel to conquer the market so as to retain a good market share. The monetary gains that are embedded in the free market accelerate the pace of innovation across the organization. A
free market economy ensures healthy competition among the firms so that there results a level-
playing field for the firms. The competitive firms devise a whole lot of strategies, the important of
which ensures a competitive advantage and that becomes an innovative strategy.

AN ELABORATED FRAMEWORK

Sears and Baba (2011) have proposed a multistage and multi-level model of innovation
based on Amabile’s (1988) three core individual-group level components of creativity (intrinsic
task motivation, skills in the task domain and skills in creative thinking which in turn influence
components at the organizational level (motivation to innovate, resources in the task domain and
skills in innovation management which are tied to different stages of organizational innovation

As against the multistage and multilevel model of Sears and Baba (2011) that suggests a
multiplicative relationship among the three variables of motivation to innovate x resources in the
task domain x innovation management skills, a process-based continuous model of innovation is
suggested in Fig3. In this model the innovation outcomes are not traced to well-established
organizational relationships that become a precondition for innovation to take place. Rather
innovation outcomes are linked to a wholistic organismic-interactive organizational innovation
processes which in turn are indirectly influenced by contextual processes. Innovation as a outcome
is thus dependent on the totality of the organismic-interactive-organizational processes. This model
tries to overcome the one- to- one relationship or one –to-two –relationships suggested in the
multilevel and multiplicative processes as it does not specify or embody clear structural linkages. In
this continuous process model of innovation structural linkages or well-established hierarchical
relationships are not a prerequisite for innovation to take place. The traditional structural
hierarchical relationships are to be replaced by a new configuration of structural processes.
Fig. 3. An Elaborated Framework
THE MEDIATING ROLE OF STRUCTURE IN ORGANISATIONAL INNOVATION

Conventional form of organizing is found to be a hurdle in accelerating the innovation process and it destroys the innovative climate of the organization (Dougherty, 2004). The traditional form of organizing encourages stability and rigidity rather than flexibility and creativity. It is in this context that the structural importance of innovation is to be considered and understood Fig.4.

According to Child (1972) the three arguments pertinent in the explanation of differentiation in organizational structure are environmental conditions, size and technology. These three forces exert influence on the configurations of the organization and that the vertical and horizontal differentiation practiced are dependent on the complexity and rate of change of factors in the environment, the number of employees employed and the extent of advancement introduced in the level of technology.

Innovation being an outcome of the interaction among the individual-group-organizational processes, it is quite reasonable to state that structure plays an important determining influence on organizational structure which is represented by hierarchical levels, forming of departments and the patterns of coordination and control and as such a direct relationship can be found between structure and innovation.
Daft (1978) has differentiated an administrative core and a technical core in the structure of organization. Further both the cores of the organization are sources of innovation in the respective areas of administration and technology. It is evident that the duality identified suggests nothing more than the pattern of differentiation practiced in all organizations. Therefore the task is to identify the key structural processes that result in the creation of innovative outcomes.

The flexibility and adaptiveness of organizations that get reflected in structure in less verticality and less hierarchical relationships is sure to set the pace of innovation. Foo and Mc Kiernan (2007) state that organizations that are adaptive bring forth closer interactions leading to the emergence of collective efforts. This fact is underlined by the fact that team structures and processes enhance the innovation processes in the organization (for example, Mitchell, 1986).

Team structures and processes, a key structural component identified in innovative organizations are characterized by a number of significant processes. Participative leadership behaviors and psychological empowerment (Huang, et al, 2010) improve the momentum of innovations in organization. Participative behaviors ensure richness of idea generations and critical reflections. Team reflection and fostering of innovation is made possible in participative leadership behaviors (Somech, 2006).

Team structures are further marked by democratic communication, flexibility and collaboration (Dombrowski et al 2007). Open and free-exchange of knowledge takes place in organizations that are dominant in horizontality. Leiponen and Helfat (2010) identify knowledge as the key to innovation. Multi-dimensional knowledge structures evidently give the organization a competitive advantage. Knowledge creation capacities of the organization thus hold the key to organizational innovation.
Knowledge can be considered either as a commodity or as a resource with immense potentialities (Murray and Blackman, 2006). The traditional structural view of knowledge is that it is a commodity. Considering knowledge as a resource that is to be continuously replenished brings into focus the necessity of doing away with the traditional structural patterns of organizations. This brings to the point that trickle-up and trickle-down practices (Daft, 1978) can seldom be a fertile ground for innovation. This traditional structural view of innovation is to be replaced by a view of organization where horizontal-multilevel interactions and team structures across the (few) levels of the organization steer the course of innovations. It is to state that horizontal-cross-functional structures are the real building blocks of innovative organizations.

**A Comparison Between MSME’s and LE’s**

Small is beautiful or not beautiful is the question to be examined in comparison to large enterprises in the field of innovation. There are no conclusive evidences as to who produces the greatest quantum of innovation, small or big enterprises (Acs and Audretsch, 1988).

Schumpeter (1942) viewed innovation as primarily an activity of very large companies. It can be stated to be true considering the vast array of resources both technical and non-technical employed in large organizations. However this scenario is changing in the modern times because of the rapid and transformative technological changes taking place in the manufacturing and services sectors. The historical advantages of economies of scale and scope credited with the large organizations are now really historical as the advancements made in computer technology has drastically altered the production process (Parker, 2000). Advancements in microelectronics have pushed the frontiers of innovations to such a great extent that they are most feasible, possible and operational in SME’s. Small firms are found to be innovative producers two-and-a-half times more
than large firms (Parker, 2000). Moreover small firms are also speedier in bringing innovation to the market.

However this has not been the case always as a vast majority of small firms do no research/innovative activity because of a number of factors like poor infrastructure, lack of capital, poor employment relations, etc., (Parker, 2000). Overriding the aspect of smallness or bigness, the extent of innovations in enterprises depend upon enterprise’s own objectives and strategy, its internal technological capability, customer demand, market opportunities, infrastructure, etc. (Balasubramanya, 2005). Both small and big organizations are innovative but the difference between them is mediated and moderated by a host of factors which are enterprise specific.

**Conclusions**

The complex process of innovation is thus unraveled using the OIC Model that purports to be comprehensive, systemic in approach and easy to implement. The model analyses and synthesizes the core processes that accentuate creative-innovative ventures. The analysis and synthesis, done from technical and non-technical perspectives, incorporates structural –functional processes of the organization. The macro and micro thinking that have gone into the study bring to light the facilitative and hindering processes of innovation. This model is presumed to usher in a period of innovation without which organizations may find it difficult to survive in this fast-changing world.

**References**


