

**THE ROLE OF AMBIDEXTERITY AS A MEDIATOR IN THE ENVIRONMENTAL
DYNAMISM - ORGANIZATIONAL CONTEXT – STRATEGIC RENEWAL
RELATIONSHIP AMONG ESTABLISHED FIRMS IN INDIA**

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ABSTRACT

The research study attempts to explore the significance of the mediating role of contextual ambidexterity that leads to strategic renewal in organizations. Accordingly the antecedents to renewal like the context pertaining to an organization, dynamism in the environment and ambidexterity have been examined through a predicted relationship to suggest that these specific variables lead to strategic renewal. For establishing the relationship between these four variables, an empirical study is conducted in eleven established firms. The findings of the research suggest that ambidexterity mediates the relationship between environmental dynamism, organization context and renewal.

Key words: strategic renewal, organizational context, environmental dynamism, contextual ambidexterity, mediator.

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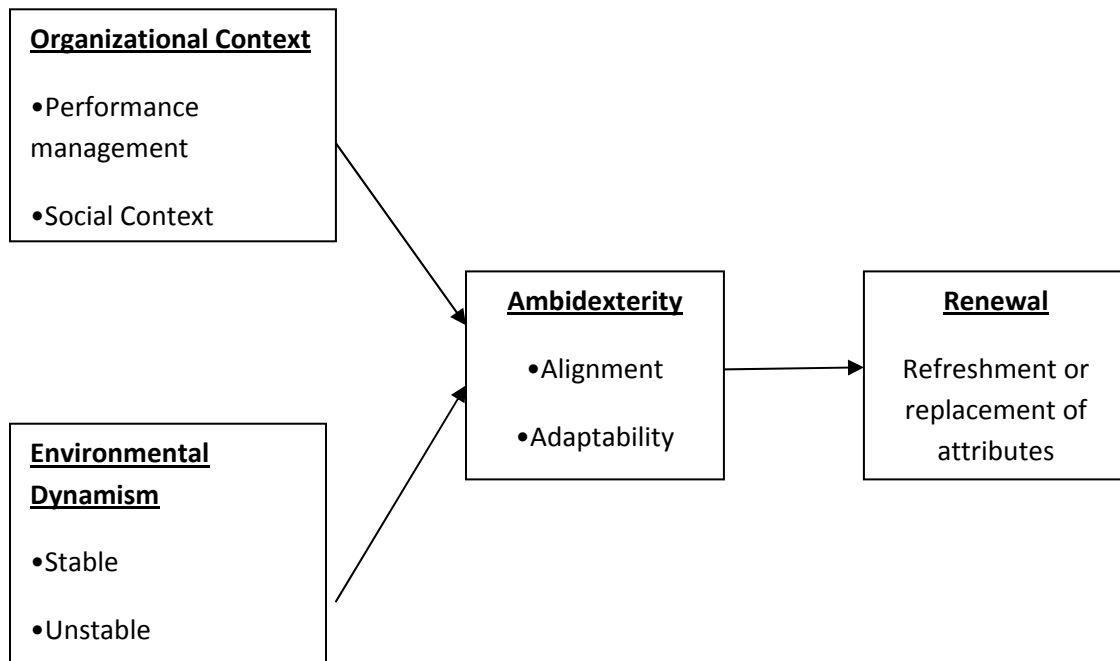
Strategic renewal in organizations is an issue which has found relatively less importance in management literature. Studies in strategic renewal have exhibited how the process, content and outcome of replacement or refreshment of attributes have been reported for renewal. Similarly ambidexterity has been widely studied in terms of both contextual and structural aspects and how firms go about building ambidexterity in organizations. Further it has been reported through empirical research that development of appropriate organizational context shapes or facilitates ambidexterity in organizations. Does it also lead to renewal has remained largely unexplored. The collective influence of organizational context and environmental dynamism's role in shaping ambidexterity which can drive renewal has also remained unexplored. As such what are the antecedents to create renewal in organizations? Do any of these antecedents have a mediating effect? This study attempts to find the relationship between organizational context, environmental dynamism, ambidexterity and renewal and in particular to understand the mediating role of ambidexterity. The study is based on a predicted relationship between the four elements (refer Figure-I).

The research gaps identified are the following-

i) Literature review has revealed that empirical work has been done on how organizational context in an organization shapes ambidexterity, but the role of environmental dynamism as an influence has not received attention. The present research attempts to study the effect of both the

antecedents (organizational context and environmental dynamism) to create ambidexterity in organizations which can facilitate renewal ii) Firm performance is assisted by development of ambidexterity as had been widely reported; however the role of ambidexterity which can enable firms to achieve renewal have also remain largely unexplored.

Figure-I Relationships Predicted



a) **Independent Variable:** Organizational context and Environmental Dynamism are taken to be the independent variables and explored in detail to illustrate that appropriate organizational context and environment facilitates ambidexterity which then leads to renewal.

b) **Dependent variable:** For the current research study, renewal is assumed and predicted to be the dependent variable which is caused by developing appropriate organizational contexts and environment through an intermediate effect of ambidexterity.

c) **Mediating variable:** The mediating variable considered for this research is ambidexterity. It is argued through the paper that the mediating variable acts as an intermediate effect to ultimately lead a firm to renewal.

OBJECTIVES OF THE STUDY

This study is an attempt to explore the relationship between the following-

- i) How does ambidexterity facilitate renewal in organizations?
- ii) How does the individual and combined effect of organizational context and environmental dynamism shape ambidexterity in organizations?
- iii) What type of role does ambidexterity play in the predicted relationship/? (Is it a mediating or moderating role?)

RESEARCH STUDIES AND HYPOTHESES DEVELOPMENT

i) Strategic Renewal:

Studies in strategic renewal have exhibited how the process, content and outcome of replacement or refreshment of attributes have been reported for renewal (Agarwal and Helfat, 2009; Fuller and Volberda, 1997). Most of the research efforts in strategic management are rooted in studies of how firms can stabilize themselves and not on how to adjust to the changes in the external environment (Fuller and Volberda, 1997). Thus organizations that wish to adjust need to reconcile the paradox of conflicting forces for change and stability. The pressure to change comes not just from the threats to survival but also from the desire to grow and be more successful. Resolving the paradox of change and preservation means recognizing that continuous renewal inside a complex firm is far from easy. Abrupt changes where the scope of change is

large can lead to chaos and confusion, sending conflicting signals which can signal change of organizational culture and many a time lead to further organizational crisis (Volberda, 1996). Thus firms need control mechanisms that prevent the fissuring. Major emphasis has been on two important mechanisms that separate the change and stability either by spatial (time) or by temporal (place).

Defining Strategic Renewal

Any act of refreshment or replacement of attributes like the process, content or outcome that can significantly affect the long term prospects of a firm is understood to be strategic renewal (Agarwal and Helfat, 2009). There are two basic types of strategic renewal- (i) discontinuous strategic transformations and (ii) incremental (continual) renewal.

Discontinuous transformations: Of late, majority of the research studies have focused their attention on analyses of discontinuous transformations. Major changes such as a new technology that makes the existing technology obsolete or shifting customer demand may cause a company to fundamentally alter one or more aspects of its strategy and organization which are basically discontinuous transformations (Adner, 2002). Discontinuous transformations involve replacing important parts of a company and its strategy, and affect the long-term prospects of the firm. Thus, major transformations involve change along multiple dimensions, such as business model changes, changes in technological base, organizational structural mechanisms, resources, routines, capabilities, and organizational mindset all of which entail strategic renewal.

Continual (incremental) transformations: As major transformations can pose great difficulties due to the extent of change required, many companies find it very hard to effect such major changes and instead may seek to continuously renew themselves in incremental ways

periodically in the hope of keeping pace with and even leading, external environment changes (Rothaermal and Hess, 2007). This track of managing transformations is in line with researches on ambidexterity (O'Reilly and Tushman, 2004; Gibson and Birkinshaw 2004), which focuses on ways in which firms can build new businesses while operating matured businesses. These are typically incremental strategic renewal efforts.

Incremental strategic renewal, if undertaken proactively, may enable firms to cope with changes in the external environment as they take shape, and thereby reduce the need for a much larger and more difficult transformation later on. One solution to this tension between routines and change is to institutionalize continuous renewal through routines, organizational structure e.g., dedicated organizational units in charge of specific types of renewal activities such as alliances (Dyer, Kale and Singh 2001), and incentives to conduct on-going renewal activities. Additionally, if a firm develops dynamic capabilities that it uses repeatedly to undertake specific forms of strategic renewal, such as a dynamic capability for acquisitions, this will help to institutionalize renewal within the organization and enable renewal activities to function more effectively on a continuing basis. Through both continuous strategic renewal and discontinuous transformations, firms may end up with strategies and organizations that differ substantially from where they began. A series of small incremental changes can accumulate into a much larger change when viewed over a longer time span. This shows that it is a phenomenon where the content and process of strategy are heavily intertwined, involving multiple dimensions of change including those with regard to competition, firm resources and capabilities, organizational structure, and cognition, as well as routines and processes for decision making and implementation.

The above discussion clearly offers a valid argument to suggest that firms that deploy capabilities to find newer ways of doing things indirectly addresses the need for being ambidextrous and hence creates a higher need for renewal in organizations. Thus dynamic capability has a huge impact for firms in renewal. This aspect of ambidexterity is argued in the next section to suggest the fact that firms which exhibit higher attributes of ambidexterity leads it not only to deliver superior performance but also increases the chances of creating renewal.

ii) *Organizational Ambidexterity*

Organizational ambidexterity is a relatively new research stream in organization theory and studies available in literature so far have been few to suggest that the issue of exploration and exploitation through the structural route (O'Reilly and Tushman, 2004) can jointly influence firm performance. Recently some conceptual work has been followed up with empirical studies which provide evidence of the influence of ambidexterity on firm performance. Thus multi-level studies on ambidexterity have focused on i) the positive influence of ambidexterity on firm performance (Gibson and Birkinshaw, 2004; He and Young, 2004, Lubatkin et al, 2006) ii) Studies focusing on new structural groupings in organizations for ambidexterity to flourish has being extended to include contextual antecedents (Gibson and Birkinshaw,2004) iii) ambidexterity that is based on informal networks (Gulati and Puranam,2009) and leadership(top management driven) based developments (Lubatkin et.al, 2006; Smith and Tushman,2005) and iv) interrelationships between ambidexterity, antecedents and performance outcomes (O'Reilly and Tushman, 2008; Raisch and Birkinshaw, 2008). Thus coming to terms with ambidexterity is the ability to handle different degrees of tensions in issues like a) a firm that is simultaneously pursuing differentiation and integration b) whether ambidexterity is a characteristic of the individual or of the organization c) whether the perspectives of ambidexterity are static or

dynamic and d) whether ambidexterity arises from internal or external perspectives (Raisch, et al, 2009).

The construct of Gibson and Birkinshaw (2004) have been used for research in this area and as such while referring to organizational ambidexterity, typically contextual ambidexterity will be referred to as it arises from features of its organizational context. This construct of ambidexterity through the contextual route is defined as a capability that arises out of the behavioral pattern of a performance centre (business unit) to juggle between the need to align and adapt simultaneously. Alignment can be defined in terms of how multiple business units in organizations work together to display a synergistic effect and cohesion in their working styles ultimately leading to achievement of the wider organizational goals. Similarly adaptability can be understood to be the ability of a business unit to quickly adjust and refocus on activities in order to prescribe to the ever changing demands in the task environment. While discussing the concept of contextual ambidexterity, it is important that this construct is different from the traditional concept of structural ambidexterity (Tushman & O'Reilly, 1996). Unlike structural ambidexterity which can be built by developing “dual structural mechanisms” contextual ambidexterity is best realized in a business unit by developing systems, processes, values, beliefs and norms that empowers employees in organizations. This empowerment through context can be understood in terms of how an individual devotes time shuffling between the need to align as also to adapt.

The Route of Contextual Ambidexterity

Organizational ambidexterity can be understood as an organization's ability to juggle between two contrasting work activities simultaneously. As mentioned by Adler et al. (1999),

organizations can go for both flexible manufacturing on one hand and manufacturing efficiency on the other. Similarly Porter (1980, 1996) had discussed on how organizations can work for differentiation and low cost strategic positioning as also the idea of global integration and local responsiveness (Bartlett & Ghoshal, 1989). In their seminal work, Tushman and O'Reilly (1996) referred to ambidexterity as the ability of a firm to simultaneously demonstrate both continual (incremental) and discontinuous innovation and change. The idea of dual structural arrangements for managing innovation was initially put forward by Duncan (1976). Besides, the work of March (1991) focused on creating the needed balance between conflicting demands for exploitation and exploration.

Contextual ambidexterity emerges with two elements -alignment and adaptability. Though the characteristic features of contextual ambidexterity can be attributed to a business unit, its manifestation can be observed in many employees in their work behaviour. Thus appropriate systems and work practices are developed to nurture ambidexterity in the behavior of individuals which ultimately helps them in making the switch between alignment and adaptability when required. Gibson and Birkinshaw (2004) go on to mention that business units that develop ambidexterity through the contextual route rely on the interplay of the dual capacities of alignment and adaptability. Thus the multiplicative index of alignment and adaptability is understood to be the effect of ambidexterity (Birkinshaw and Gibson, 2004).

Alignment activities are geared towards improving firm performance in the short term and adaptability activities are geared for creating for the long term. This can be viewed as some form of transcendence whereby the elements are complementary and interwoven (Lewis, 2000; Schneider, 1990). Several studies have reported that business units where characteristics of exploration was encouraged and exploitation was not given adequate importance have suffered

huge costs of experimentation without gaining significant benefits. Conversely studies have also been made in which systems in a business unit that encourage exploitation but excludes exploration are also not likely to get optimal benefits (Gibson and Birkinshaw, 2004). For survival and prosperity, March (1991) had suggested that a business unit needs to develop the twin abilities at the same time. The above discussion makes us ponder about the possible links between environmental dynamism and ambidexterity developed in organizations. As had been mentioned, there is a possibility that high levels of ambidextrous characteristics exhibited by organizations are fallout of higher environmental dynamism, which needs to be explored. Similar views had been expressed by Gibson and Birkinshaw (2004) who had mentioned that future researches should explore whether an important boundary condition to the fact that ambidexterity is a critical capability has anything to do with level of dynamism in the business environment. Accordingly this ability of creating contextual ambidexterity through alignment and adaptability is the basis on which organizations can create renewal by refreshing or replacing some or all of its attributes.

Thus the above discussion reinforces the argument that firms by developing ambidextrous characteristics create not just a platform for enhanced performance but creates a solid pathway for renewal whether it is discontinuous or continuous renewal. Thus the arguments that have been discussed in the preceding sections for ambidexterity reinforces the four statements (1) Ambidexterity requires active management of the tensions between alignment and adaptability(2) ambidexterity result from and manifests itself at both individual and organizational levels; (3) ambidexterity is the outcome of a dynamic process that involves both the simultaneous and subsequent attention to exploitation and exploration; and (4) ambidexterity depends on the ability to integrate internal and external knowledge bases for synergistic benefits.

Collectively the above arguments necessarily gives us a base to state that the dynamic content of ambidexterity is an antecedent to renewal and plays a significant role in understanding how firms creates renewal in organizations. As the study involves studying the organizational context that can drive ambidexterity, the focus on contextual ambidexterity in the current scope of study is quite imperative. Thus organizations by creating an appropriate behavioral context when faced with varying nature of environmental dynamism can drive contextual ambidexterity which offers a pathway for potential renewal.

Thus the first hypothesis is-

Hypothesis-I: *The higher the level of ambidexterity, the higher the need of renewal that can be demonstrated by organizations.*

iii) Organizational Context

Based on organization-context literature based on Ghoshal and Bartlett's (1994) framework for organizational effectiveness, wherein superior efforts at renewal and revitalization are facilitated when leaders in a business unit create a behavioral context. Gibson and Birkinshaw (2004) referred organization context to the systems, processes and beliefs which collectively shape individual-level behaviours in any organization. Ghoshal and Bartlett (1994:95) while referring to rebuilding a behavioral context suggested four behavior framing attributes. A management context shaped by discipline does not rely on authority relationships or management policies as the means for influencing individual behaviour; rather self-discipline in management processes induces members to voluntarily strive to meet the requirements and expectations of the system. As such establishment of clear standards of performance, a system of open-free and frank feedback constitutes the attribute of discipline. An attribute of context which

can make employees give their best and voluntarily strive for more can be referred as stretch. In self-renewing organizations, top management tries to put in systems and create an internal environment that raises individual aspirations levels and encourages people to give their best. Thus stretch could mean development of a sense of collective identity, shared vision, etc. The attribute Support signifies more than the vertical relationships that exist in organizations. A context of support induces fellow employees to frame horizontal linkages among peers-relationships that become characterized more by cooperation and collaboration. Thus support could be developed by experimenting and allowing a certain degree of freedom of initiative at lower levels for sharing ideas and accessing resources. Support could be in the form of senior members providing guidance to new initiatives at the lower levels by being developmental coaches. The fourth attribute of behavioral context - Trust signifies the reliance on the commitments of each individual member. Trustworthiness would stem from fairness and equity in a business unit's decision to allocate resources. These four attributes as conceptualized by Ghoshal and Bartlett can be interdependent.

Birkinshaw and Gibson (2004) have used the concept of organizational context based upon Bartlett and Ghoshal's construct of the four attributes, i.e. self-discipline, stretch, support and trust. They synthesized the four attributes and concluded that stretch and discipline constitutes performance management and support and trust signifies social context. The multiplicative score of performance management and social support constitutes organizational context. A higher organizational context refers to a higher index (multiplicative score of social support and performance management). For the purpose of this research, the questionnaire used by the mentioned authors in defining organizational context and the methodology used for finding an index to the same, have been used. Thus by extending their framework that when a

supportive context is made to exist, individuals attempt to engage in both the exploitation (alignment) oriented and exploration (adaptability) oriented actions, and this result in development of ambidexterity which is contextual in nature and which subsequently drives renewal in organizations.

iv) *Environmental Dynamism*

Environmental Dynamism refers to the rate of change and instability of the environment. Dynamic environments may be characterized by changes in various market elements such as changes in preferences of customers, a disruptive technology and intensity of competition increasing. Turbulence and volatility are similar in terms of dynamism and are related to a degree of novelty in their changes or to their speed (Ansoff, 1979). In a highly dynamic environment, frequent changes in customer's preferences, an outdated technology and how business is conducted require firms to continuously modify their products and services to remain competitive. Change renders the current product or service to be obsolete and requires the development of modified or new ones (Jansen et.al, 2006; Sorensen and Stuart, 2000). On a similar note, abrupt and unpredictable changes can render the firm's existing knowledge to be redundant (Hitt et. al, 2000). Iansity (1995) had suggested that an organization's product development capability gets hampered due to the rapid changes in the external environment causing uncertainty. Thus firms need to continuously acquire and refine capabilities to come up with new market offerings to minimise the threat of a firm's obsolescence. It means firms must focus on solving new problems through new knowledge creation. Alternatively, in less dynamic markets, customer preferences are relatively less volatile, and modifications in products and services are less required. As such firms which face moderate to low stability in environmental dynamism responds to changes relatively late compared to firms that face volatile environments.

Complexity is defined as the proliferation and diversity of factors in the environment (Duncan, 1972). The more the number of elements and the more the difference among elements, the more is the environmental complexity. Fuentes-Fuentes, et al, (2004) mentioned that complexity in the environment has a direct bearing on the nature of knowledge management capability in organizations. Management theorists have studied the larger role of the external environment that helps organizations to sense and seize opportunities by virtue of acquiring dynamic capabilities as Teece et al., (1997) has proposed. Other authors have tried to explain the moderating role of environmental uncertainty and complexity in the relationship between dynamic capabilities and sustainable competitive advantage. The environment-strategy framework states that environmental factors are an important consideration for a firm that is determining its strategy as mentioned by Venkatraman (1989) and Lou and Park (2001). There is a rich history in the strategy literature that demonstrates the direct influence of the environment on a firm's strategic initiatives as per the findings of Venkatraman and Camillus (1984). It can be argued that effective development of a firm requires the "fit" between the environment and its strategy. Thus the study of the nature of links between knowledge exploitation and exploration and the environmental context play an important role.

Antecedents to Ambidexterity

As had been explained above and based on our predicted relationships, organization context and environmental dynamism create a facilitating way of driving ambidexterity in firms. The antecedents of ambidexterity typically are a combination of both organization context and the nature of the dynamism in the environment and not either of these. Thus the second and third hypotheses are-

Hypothesis-II: *The higher the appropriateness of organizational context and uncertainty of the business environment, the higher is the level of ambidexterity and*

Hypothesis-III: *The higher the buildup of ambidexterity in organizations, the higher is the level of renewal*

Mediation effects: Mediation and moderation are theories for refining and understanding a causal relationship. Thus researchers through hypotheses development can find out how a cause leads to an effect (Wu and Zumbo, 2008). As mentioned by the authors a mediator is a third variable that provides the links between a cause and effect. A moderator in contrast is a third variable that modifies a causal effect. Mediation is a causal model that explains the process of “why” and “how” a cause-and effect happens (Baron and Kenny, 1986). Hence, a mediational analysis attempts to identify the intermediary process that leads from the independent variable to the dependent variable. In other words in a simple mediational model, the independent variable is assumed to cause the mediator, and the mediator in turn causes the dependent variable. As such a mediating variable is also termed as indirect effect, surrogate effect, intermediate effect or intervening effect (Mackinnon et al., 2002).

A moderation effect is a causal model that postulates “when” or “for whom” an independent variable most strongly (or weakly) causes a dependent variable (Baron and Kenny, 1986; Kraemer et al, 2002). The moderation effect is more commonly known as the statistical term “interaction “effect” where the strength or direction of an independent variable effect on the dependent variable depends on the level or the value of the other independent variable.

The argument that follows from the predicted relationship defined earlier is that ambidexterity mediates the relationship between environmental dynamism, context and renewal. That is the attributes of environment and appropriate context influence ambidexterity in facilitating renewal

in organizations. When context has not been developed, the environmental influences may or may not influence ambidexterity and renewal. Based on the predicted relationship, contextual ambidexterity has an intervening or intermediate effect between environmental dynamism, context and renewal which is sought to be tested. Thus the fourth hypothesis is-

Hypothesis-IV: *Ambidexterity mediates the relationship between the antecedents (organizational context and environmental dynamism) and the consequence (renewal).*

METHODS

Eleven established firms in diverse sectors in India (cement, telecom, textile machinery, metallurgy, venture finance, network technology, information technology, Infrastructure, energy, financial services and engineering consulting) have been taken up for administering a questionnaire whereby the organizational context, nature of environmental dynamism, ambidexterity and renewal exhibited was surveyed based on primary research. Based on the above study attempts have been made to establish the relationship between the mentioned variables through correlations. This was followed by linear regression to find the strength of the relationship and thereby support or reject the hypotheses mentioned.

Considering the earlier studies of this nature which have typically focused on single or few case studies for drawing inferences, the present study was done by asking relatively large samples of individuals to rate their business units on each of the aspects of environmental dynamism, context, ambidexterity and renewal in each of the eleven organizations. The sample was sufficient to consider statistical analysis.

Firms considered as established firms: For the purpose of this study, firms that are either public, or have more than 100 employees or are more than five years old. Firms which fulfill all of these or any of the above mentioned criteria are considered to be established firms.

Frame of reference for the choice of Industries: Within the definition provided for established firms as above, firms which fulfilled the above criteria for being an established firm was subjected to the following criteria to be the pre-qualification for taking the survey. The same are adapted from O'Reilly and Tushman (2004).

- i) Firm's interest in promoting some form of organizational separation vis-à-vis-organizational integration as also the promotion of varying sub-cultures within the same firm.
- ii) Demonstrating some characteristic of alignment (exploitation) vs. adaptability (exploration).
- iii) Organization efforts in promoting entrepreneurship.
- iv) Firms response to sensing and seizing opportunities and taking some bold bets.
- v) Capability to leverage existing competencies to build new businesses.
- vi) The firm's capabilities to compete in mature and new markets.

Sixteen firms were initially taken for consideration. Out of these, eleven firms fulfilled at least four of these pre-qualification criteria as a benchmark, and hence were covered in the survey as mentioned in Table- I

Levels of employees considered for administering questionnaire: As the nature of the study involved understanding of the terminologies of ambidexterity, context and environmental dynamism, it was found in a pilot study of two organizations that the lower or operational level

employees were least informed or are aware of the questions. Accordingly the study was conducted by administering the questionnaire to senior and middle level employees, who were relatively the best informed about the unit or business level outcomes.

Procedures and Sample:

A survey of a stratified random sample of employees at two hierarchical levels (senior and middle) in each of the eleven organizations with a structured questionnaire containing the key elements of organizational context, ambidexterity, environmental dynamism and renewal was taken up. A total number of 222 valid responses by employees were considered for analysis. The questions administered were on a 7-point Likert Scale. (Refer Table –II)

Measures:

All the variables were measured with multi-item scales. Scores on these measures were means calculated across the items in SPSS. The scale reliability values are mentioned in Table-III

Renewal: On matters of renewal(dependent variable), the questionnaire administered to senior and middle management required to reflect on the degree to which they agreed on the questions like implementation of new or significantly changed business strategies and organizational structures; significant changes how the company competed; types of new alliances; restructuring efforts; new management techniques adopted in the last three years; formation of new teams for knowledge management; acquiring new skills and capabilities and if the employee concerned had been part of a team to manage the changes. The Cronbach's alpha for the reliability scale was found to be 0.805

Ambidexterity: Separate scales were constructed for alignment and adaptability. Towards ambidexterity (consequence) questions were asked in matters of alignment and adaptability characteristics'. In matters of whether an organization is ament questions asked on senior and middle managers were i) whether the organization works coherently to support the overall objectives of the organization ii) do people work at cross purposes and iii) whether organizational activities involve wasting resources on productive/unproductive activities. Adaptability characteristic questions focused on i) whether management systems in this organization encourage people to challenge out- model traditions and practices ii) are management systems flexible enough to allow employees to respond quickly to changes in the respective markets iii) can the existing systems developed within evolve and adapt rapidly in response to shifts in customer priorities. The multiplicative score of alignment and adaptability is the score attained for organizational ambidexterity. The overall internal reliability of ambidexterity scale was 0.569.

Environmental Dynamism: Typical questions were raised in terms of how stable the company in the industry operated and how complex the environmental factors were- questions included i) product ideas made through technological breakthroughs in the industry ii) the rate of technological changes iii) customer preferences changing with time iv) firm product/service complexity; process complexity v) knowledge intensity of the product development process and vi) whether technological changes provided opportunities in the industry. The internal reliability of the scale used was found to be 0.825

Organizational Context: Questions were asked on two areas namely performance management (stretch and discipline) and social support (attributes included trust and support) based on the scales mentioned (Birkinshaw and Gibson, 2004). On performance management, questions

related to discipline and stretch were asked and the scale used had internal reliability of 0.794. Questions under trust and support were clubbed under social context. The internal reliability of social support scale was found to be 0.821. The multiplication of the average scores of performance management and social support is understood to be the score for organizational context (Birkinshaw and Gibson, 2004). The overall internal reliability of the scale used for Organizational Context was found to be 0.872.

The Descriptive Statistics for the Studied Variables Apart from measuring skewness and Kurtosis (refer Table-IV), the data has gone through multivariate normality check using Kolmogorov-Smirnov test of normality (Lillefors significance correction). The result suggests no transformation of data, as results are well under the normality limit.

Analysis: Based on the predicted relationship, scores attained the variables namely Environmental Dynamism (ENV_DYN), Organizational Context (OC), Ambidexterity (AMB) and Renewal(REN) were taken up for statistical analysis using SPSS package. As can be seen from the Correlation above (Table-V), the coefficient of Pearson Correlation is significant enough to suggest such a relationship exists as per the predicted way, with strong significance of the correlation between the variables.

There was a positive correlation between alignment and adaptability, indicating that business units can indeed achieve both simultaneously. Further alignment, adaptability and their interaction (ambidexterity) were significantly and positively correlated with renewal. This finding indicates the importance of the dual capacity Performance management context, social context and their interaction (organizational context) were significantly and positively related with renewal. Thus it provides evidence that organizational context is positively related to renewal.

The construct have also been tested for any possible systematic errors, like common method bias (Podsakoff, et. al, 2007). The scale item was examined for potential common method variance (CMV) using Harman's one- factor test. The exploratory factor analysis (EFA) derives 7 factors total explaining 60.482% of the variance. Further if one general factor were to be derived, it would explain only 29.127% of the variance. Thus the above test indicates less evidence of common method bias in the current study, and further analysis of the predicted construct can be made.

Hypothesis Testing:

The hypothesis testing was done by linear regression. The values supporting the hypotheses are mentioned in Table-VI.

Testing the mediating effect

Based on the predicted relationship, Hypothesis -IV mentions that ambidexterity as a variable will mediate the relationship between context, environmental dynamism and renewal. Analysing mediation involves three steps (Baron & Kenny, 1986). a) The first step is to establish the independent variable (here context and environment dynamism) influences the mediating variable (ambidexterity). This step was supported in model- 2 of table –VI. b) The second step is to demonstrate that that the independent variable (context and environmental dynamism) influences the dependent variable (renewal).This step was supported in model-3 of table VI. c) Lastly one has to demonstrate that the mediator (ambidexterity) influences the dependent variable (renewal), with the independent variable (context and environmental dynamism) controlled. If in this final step, the effect of context and environmental dynamism is no longer significant when the mediator is in the model, full mediation is indicated (Baron & Kenny, 1986). As shown in model-4 of Table VI, the coefficient of ambidexterity was positive and

significant indicating the main effect of ambidexterity on renewal. Further with ambidexterity in the equation, the coefficient for context and environmental dynamism was not significant. Both the coefficient and the corresponding test statistic for significant difference (t) decreased from model 3 to model 4 (Refer -Table VI) as mentioned below.

Parameters	Model-3 of Table VI		Model-4 of Table VI	
	Coefficient	t value	Coefficient	t value
OC	.360	6.671	.324	6.044
ENV_DYN	.273	3.958	.258	3.828

This suggests that ambidexterity has a significant mediating and intervening effect on renewal.

The mediating effect: Statistical significance

The amount of mediation is defined as the reduction of the effect of the initial variation on the outcome. The statistical significance of the mediated effect was tested by finding the test statistic (also called the Z-score) using the Sobel Test ($ab / \sqrt{a^2 s_b^2 + b^2 s_a^2 + s_a^2 s_b^2}$), wherein the values of test statistic was 1.689, $p=0.0091$ (When using the Sobel error term, the .05 critical value is ± 0.97 , that is, if the absolute value of the test statistic is .97 or more, then the mediation effect is significant).

The result suggests significant mediation. Thus it can be concluded that ambidexterity has a mediating effect on the relationship between the antecedent variables (organizational context and environmental dynamism) and the dependent variable (renewal)

DISCUSSION

This study has important implications for both theory and practice of management. Often in literature it has found that driving ambidexterity in organizations leads to performance but the renewal aspect is not touched upon. The research findings suggest that creating ambidexterity sets the tone for renewal in organizations. Higher the ambidexterity exhibited in organizations, higher is the renewal efforts that can result. Similarly both the roles of organizational context and environmental dynamism in facilitating ambidexterity are also positive. This suggests that organizations need to have high understanding of the environmental influences to make success of ambidexterity exercises. Further the combined effect of the independent variable (organizational context and environmental dynamism) and the mediating variable (ambidexterity) on the dependent variable (renewal) is also significant and positive suggesting that all of the three antecedent variables are important in effecting successful renewal; however the mediating effect of ambidexterity suggests that ambidexterity influences the renewal output. Thus organizations need to build ambidexterity through appropriate organizational contexts meeting the requirements of the environment to lead to superior renewal efforts. At this stage it is worthwhile to mention that many studies of ambidexterity have been done with environment as a boundary condition. However this study has found strong links that for ambidexterity or renewal to be achieved, the nature of environment dynamism is very important and hence firms should understand the nature of environmental changes in a significant way before attempting to create a context for successful strategic renewal.

Regarding ambidexterity it has also been observed that because of the strong correlation between alignment and adaptability, both needs to coexist for ambidexterity to flourish in the organization. The results of the research suggest ambidexterity can be achieved through

appropriate organizational contextual support which can then drive superior renewal efforts. However for renewal to really happen, the interplay of context, nature of dynamism in the environment and ambidexterity is needed, and hence are the antecedents to strategic renewal in organizations. Further ambidexterity has a mediating or intermediate influence in facilitating renewal in organizations.

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Table I: Pre- Qualification characteristics of Firm considered in the survey

Firm(industry)	Criteria for selection in survey (refer frame of reference)						Total of positive attributes	Turnover (Rs. in crores)	No of employees
	i	ii	iii	iv	v	vi			
Criteria →									
A(Infrastructure)	no	yes	yes	yes	yes	yes	5	4000	400
B(engineering consulting)	yes	yes	no	yes	yes	yes	5	600	150
C(financial services)	no	no	yes	yes	yes	yes	4	200	60
D(Energy)	yes	yes	yes	yes	no	no	4	6000	600
E(Information Technology)	yes	yes	yes	yes	yes	yes	6	3000	200
F(Textile machinery)	no	yes	yes	yes	yes	yes	5	1200	650
G(Venture Finance)	yes	yes	yes	yes	yes	no	5	600	80
H(Metallurgy)	no	yes	yes	no	yes	yes	4	1500	450
I(Telecom)	no	yes	yes	yes	yes	yes	5	3000	200
J(Network Technology)	yes	yes	yes	yes	yes	yes	6	400	60
K(Cement)	no	yes	yes	no	yes	yes	4	2000	800

Table-II Characteristics of the sample firms

Firm	Management Levels		Total respondents in the survey	Industry
	Middle Management Respondents	Senior Management Respondents		
1	19	04	23	Cement
2	17	03	20	Textile Machinery
3	17	02	19	Venture Finance
4	26	05	31	Metallurgy
5	10	02	12	Telecom
6	07	02	09	Network Technology
7	10	2	12	Financial Services
8	16	04	20	Information Technology
9	17	05	22	Power
10	17	03	20	Engineering Consulting
11	30	04	34	Infrastructure
Total	186	36	222	

Table-III Construct indicator variables and Scale Reliability Values

Sl.no	Measure (Abbrev.)	Construct and Indicator Variables	Cronbach's alpha
1	OC_PER	Performance management	.794
2	OC_SOC	Social support	.821
3	OC	Organizational context	.872
4	ENV_DYN	Environmental Dynamism	.825
5	AMB_ALI	Alignment	.342
6	AMB_ADA	Adaptability	.726
7	AMB	Ambidexterity	.569
8	REN	Renewal	.805

Table- IV: Test results of Normality

		OC- PERF	OC- SOC	OC	ENV_ DYN	AMB_ ALI	AMB- ADA	AMB	REN
N	Valid	222	222	222	222	222	222	222	222
	Missing	22	22	22	22	22	22	22	22
Skewness		-0.435	-.404	-.086	-.611	-0.022	-.604	.625	-.410
Std. Error		.163	.163	.163	.163	.163	.163	.163	.163
Kurtosis		.182	.124	-.268	1.413	-.279	.289	.388	-.223
Std. Error		.325	.325	.325	.325	.325	.325	.325	.325

Table-V: Correlations among the variables and Cronbach’s alpha along the diagonal

		1	2	3	4	5	6	7	8
1	OC_PER	(0.794)							
2	OC_SOC	.631**	(.821)						
3	OC	.889**	.903**	(.872)					
4	ENV_DYN	.501**	.466**	.527**	(.825)				
5	AMB_ALI	-.006	-.032	-.26	-.014	(.342)			
6	AMB_ADA	.396**	.412**	.461**	.356**	.213**	(.726)		
7	AMB	.234**	.226**	.258**	.188**	.802**	.737**	(.569)	
8	REN	.511**	.480**	.558**	.477**	.040	.533**	.337**	(.805)

**Correlation is significant at the 0.01 level (2-tailed). Source= output of SPSS

Note: Cronbach’s alpha values in the parenthesis along with the diagonal

Table-VI: Results of the linear hierarchical regression technique

Model no	Variable	Parameter Estimate	Standard error	P- value	Hypothesis test results
1	Dependent: REN				H 1:supported
	Intercept	.574	.027	.0005	
	Amb	.305	.057	.0005	
2	Dependent: AMB				H2: supported
	Intercept	.284	.055	.0005	
	OC	.206	.072	.004	
	ENV_DYN	.086	.092	.349	
3	Dependent: REN				H3: supported
	Intercept	.335	.042	.0005	
	OC	.360	.054	.0005	
	ENV_DYN	.273	.069	.0005	
4	Dependent: REN				H4 : supported
	Intercept	.285	.043	.0005	
	AMB	.175	.050	.001	
	OC (controlled)	.324	.054	.0005	
	ENV_DYN(controlled)	.258	.067	.0005	