Essay 2

Title: Strategic orientation, slack and firm performance: A moderating role of institutional uncertainty and ownership
Strategic orientation, slack and firm performance: A moderating role of institutional uncertainty and ownership

3.1 Abstract

In this study, I investigate the isomorphism in strategic behavior of public sector and private sector firms in context of Indian banking industry. I examine whether firms alter their strategic behavior under high institutional uncertainty and thereof its impact on isomorphism. Further, contingent effect of institutional uncertainty and ownership of firm on strategic orientation’s linkage with slack and performance is also enquired in longitudinal setting. The empirical investigation suggests that some firms altered their strategic orientation to prospector leading to enhancement in isomorphism under high institutional uncertainty, thus supporting my theorization. This study carries forward the debate whether environment favors some particular strategy or all the strategies perform equally well. My findings suggest the exhibition of equifinality in performance and unabsorbed slack while defenders possess less absorbed slack than prospectors. Thus, empirically validates the assumption of Miles and Snow (1978) typology. Institutional uncertainty moderates the strategic orientation and unabsorbed slack linkage. The findings have implications for managers that all success strategies perform equally well, if properly implemented.

Keywords: Strategic Orientation, Isomorphism, Miles and Snow, Slack, Institutional Uncertainty, Performance
3.2 Introduction

Extant literature posits that institutional environment influences strategic behavior of firm (Peng and Heath, 1996; Guillen, 2000; Peng, 2003; Wright et al., 2005; Su et al., 2009). The institutional uncertainty encountered is perceived as opportunity by some firms whereas other firms consider it as threat. These both types of firms tend to engage/increase the innovative activities in high uncertainty environment though due to different reasons (Gilbert, 2005; Voss et al., 2008). Under high uncertainty, managers are inclined to be more proactive, risk taking and innovative (Khandwalla, 1976; Paine and Anderson, 1977; Miles and Snow, 1978). Thus, environmental uncertainty facilitates the firm to change their strategic orientation to prospector. Under high institutional uncertainty, firms mimic other successful firms to gain legitimacy by social actors (Deephouse, 1996; Barreto and Baden-Fuller, 2006). Extant literature evidences presence of isomorphism in banking industry (Deephouse, 1996; Deephouse and Carter, 2005; Barreto and Baden-Fuller, 2006), thus Indian banking industry provides appropriate context for investigation of presence of isomorphism and institutional uncertainty as an antecedent of isomorphism.

The Indian banking industry has mainly been investigated from efficiency perspective, akin to defender strategic archetype in Miles and Snow typology (1978). The other equally important dimension of strategic behavior namely prospector orientation has largely been ignored (Mohan, 2002; Kumbhakar and Sarkar, 2003; Bhaumik, & Dimova, 2004; Mohan & Ray, 2004; Das et al., 2005; Debnath and Shankar, 2008). Thus, it makes sense to examine the impact of strategic behavior of banks on their performance in more comprehensive manner. The strategic orientation of the firm has been argued as an antecedent (Penrose, 1959) or consequent of the organizational slack (Cyert and March, 1963). The strategic orientation as an antecedent factor of organizational slack appears to be less researched. The institutional uncertainty confronted by firm influences firm performance and
organizational slack. Firms reduce uncertainty in the manner that is in consonance to their strategic behavior like prospectors create absorbed slack and defenders built un-absorbed slack during low uncertainty period (Meyer, 1982). Further, compliance to institutional rules may enhance the fit of organization with environment, leading to improvement in performance (Venkatraman and Prescott, 1992; Oliver, 1997). Though the role of environmental factor has been inferred (Hambrick, 1983; Zajac and Shortell, 1989), but Desabro et al. (2005) state that “environmental effects remained empirically uninvestigated” (Desabro et al., 2005, pp. 48). The synthesis of these arguments suggests that moderating role of institutional uncertainty on strategic orientation- performance and strategic orientation-slack linkage is less researched.

Most of existing studies on contingent effect of institutional uncertainty on strategic orientation- firm performance and strategic orientation- slack linkages have been conducted in developed economies. The firms of transition economies operate in more uncertain institutional environment (Peng et al., 2004; Li et al., 2006; Meyer et al., 2008). Further, research scope is now expanding to transition economies (Peng, 2003; Wright et al., 2005; Quer et al., 2007). In such situation, applicability of those findings in transition economies context is vague. Further, US subprime problem commenced impacting Indian economic environment in 2008-09 (Rajya Sabha Report, 2009), which persisted till 2013-14 due to European Union financial crisis and other endogenous factors. Due to these exogenous and endogenous factors, the institutional uncertainty in Indian economy has increased and the Indian economy has also gone through several institutional transitions. Thus, this situation provides an appropriate context and the natural experimental setting for investigation of contingent effect of institutional uncertainty. The strategy research had been dominated by task environment view, but the interaction of institutions, organizations and strategy had rarely been investigated (Peng, 2002). Further, spatial association of the strategic orientation
with firm performance and its organizational slack is well researched. The temporal effect of institutional uncertainty on strategic orientation- organizational slack has been investigated by Meyer (1982) through case study, while temporal effect of institutional uncertainty on strategic orientation- performance linkage was examined by Kabanoff & Brown (2008) using content analysis. Cross sectional studies do not permit to examine the influence of temporal effect of strategic adjustment on firm performance (Desabro et al., 2005). Further, deeper insight about the association of variables can be obtained through longitudinal analysis. This study is among the few that investigated moderating role of institutional uncertainty under longitudinal setting on both the linkages.

There are two contrarian views on influence of institutional uncertainty on strategic orientation – firm performance. Some research scholars argue that all three success strategies viz. prospector, analyzer, defender, if implemented well, perform equally well in all environmental settings (Miles and Snow, 1978; Smith et al., 1989). While other research scholars contest this view and argue that firms adopting a certain strategy may outperform the firms adopting another strategy in a particular context (Hambrick, 1983; DeSarbo et al., 2005). This debate is still inconclusive and unsettled, thus provide us the opportunity to join this conversation. My findings suggest equifinality in firm performance for prospectors and defenders, which supports the view point of Miles and Snow typology (1978) and others. My findings further suggest that high institutional uncertainty facilitate banks to change their strategic orientation to prospector and enhances the isomorphism in Indian banking industry, which are in line with findings of earlier studies (Sokol, 1993; Rogers and Bamford, 2002).

This study investigates (i). whether isomorphism is evidenced in Indian banking industry (ii). whether banks alter their strategic behavior to respond to circumstantial situation of uncertainty and institutional pressure (iii). whether bank’s membership to a particular strategic archetype is influenced by their ownership status (iv). moderating role of
institutional uncertainty and ownership on linkages of strategic orientation with firm performance and organizational slack in longitudinal setting.

3.3 Theoretical background

Strategic Orientation (SO) is variously defined as a firm’s proclivity emphasizing strategic direction and its fit to achieve superior performance (Barney, 1986; Pleshko and Nickerson 2008) or as principles that direct and influence the activities of a firm and generate behaviors intended to ensure the viability and performance of firms (Gatignon and Xuereb, 1997). In this paper, I adopted definition of Gatignon and Xuereb’s (1997).

Miles and Snow typology (1978) comprises four archetype strategies- prospector, analyzer, defender and reactor. Further, components of a particular configuration of first three archetypes are internally consistent with the market strategy and are deemed successful whereas the reactor is known as form of failure strategy. Prospectors have long term orientation on R&D, scope economies, flexibility, coordination and domain diversifications. They attain effectiveness through market development, and product development, but tradeoff efficiency due to underutilization and misutilization of resource mix (Miles and Snow, 1978). Defenders achieve efficiency through focused market penetration, tighter control over cost and finance and scale economies but run the risk of ineffectiveness. Analyzers adopt ambidextrous approach to balance between flexibility and stability, coordination and control, effectiveness and efficiency, and economies of scale and economies of scope. The analyzer’s main emphasis is on minimizing the risk by balancing between prospectors and defenders. The ability of the firm to effectuate any of this distinct type of strategy is influenced by the firm’s environment (Porter, 1991).

Most of industries do not entail any particular type of strategy (Deephouse, 1996). Further, uncertain and ambiguous environment make the choice of suitable strategy vague (Haveman, 1993; Abrahamson and Hegeman, 1994). Subsequently, firms establish the norms
of behavior that are legitimated by social actors (DiMaggio and Powell, 1983; Edelman, 1992). Under circumstances of uncertainty and legitimacy pressure, firms mimic other successful firms (Deephouse, 1996; Barreto and Baden-Fuller, 2006). In addition to institutional pressure, competitive pressure also compels the firms to imitate the behavior of the industry leaders (Beckert, 2010). In banking industry context, this legitimacy pressure emanates from regulator and media/public and its association with the isomorphism has also been empirically validated (Deephouse, 1996; Barreto and Baden-Fuller, 2006). Extant literature posits the presence of mimetic behavior in banking industry: “The banking industry is overwhelmed by imitation. . . . One bank goes into Internet banking; all banks go into Internet banking. One bank put branches in supermarkets; all banks put branches in supermarkets” (Porter, 1998, p. 40).

RBI Governor states that “In view of the current global financial market turmoil, there are uncertainties surrounding the financial strength of banks around the world.” (RBI report, 2010). The global turmoil situation emerged, due to subprime problem in USA, caused jolt and uncertainty in Indian economic environment. Despite of financial crisis being global in nature, its implication and timing of impact had varied for different countries (PricewaterhouseCoopers Report, 2013 ). Effect of global crisis had started exhibiting its impact in 2008-09 in the form of significant change in capital account in comparison to previous year (Rajya Sabha Report, 2009). In its response, some emerging economies had temporarily decoupled themselves from US financial system like Mexico (Dooley and Hutchison, 2009). However, IMF Managing Director Dominique Strauss- Kahn states that “Decoupling is a misleading idea...the linkages between developed and emerging market economies are now much more complex than before” (Financial Express, 2008).

Environmental uncertainty emanated in 2008-09 had continued till 2013-14 due to exogenous and various endogenous factors. Exogenous factor like European union financial
crisis added volatility in Indian economic environment whereas endogenous factors viz upcoming elections, fiscal imprudence, retrospective changes in tax laws, rating downgrade fears, cancellation of telecom licenses/proceeding on cancellation of coal block licenses along with negatively reported indecisiveness in government had also been responsible for uncertainty in environment. The institutional uncertainty can be categorized into i. Government instability ii. political violence iii. Policy uncertainty iv. Enforcement uncertainty (Brunetti and Weder, 1997). The fiscal imprudence, upcoming elections, impact of US and European Union crisis, rating downgrade fears, persistent high inflation, unearthing of scams led to the policy indecisiveness, thus high policy uncertainty during 2009-14. Some governmental actions namely retrospective changes in tax laws have lessened the degree of confidence of private sector in state. The scams that led to the cancellation of telecom licenses and the proceedings on cancellation of coal blocks may have heightened the enforcement uncertainty during 2009-14 period through the perception of ambiguity over property and contract rights. The vagueness in taxation position of merger and acquisition deals, cancellation of licenses may perhaps caused the laxness in enforcement of the contracts, thus leading to behavioral uncertainty of institutions in Indian context. These arguments favor for high institutional uncertainty during 2009-14 periods on most of the constituents of institutional uncertainty. Thus, the period of 2009-14 may be considered as period of natural shocks, causing high environmental uncertainty in comparison to previous period 2006-08. Thus, this situation provides us a natural experiment for investigation of contingent effect of institutional uncertainty on various linkages conceptualized in this study.

I built my arguments, particularly related to the isomorphism, on theoretical concepts primarily borrowed from institutional theory as well as banking industry data. The Archival reports of RBI have mainly been relied upon for banking industry data.
3.4 Theory and hypotheses

3.4.1 Isomorphism in strategic orientation and institutional uncertainty

Isomorphism had been defined as a similarity of an organization with other organizations in its environment (DiMaggio and Powell, 1983). Firms adhering to the widely used strategies, structures and practices that are manifested rational and prudent by the social actors are viewed as acceptable and legitimate (Fligstein, 1991; Tolbert and Zucker, 1983, Deephouse, 2005). These widely used strategies may generally emanate from the interaction among the firms within an industry (Edelman, 1992). In banking industry, delivery of service entails the inter-organizational co-ordination, thus firms have to be more proximate (Pennings and Harianto, 1992). This proximity, caused either due to complementarity of services or spatial nearness, is a significant impetus for innovation (e.g. Enright, 1989, Abrahamson and Rosenkopf, 1990). Proximity facilitates communication and diffusion of innovation among firms (Pennings and Harianto, 1992). They further contend that banking operations i.e. financial transactions necessitates the pooling of their operations, thus intra bank and interbank networking has become a norm of the industry (Pennings and Harianto, 1992). The agreement among the banks for use of other banks ATM and availability of white level ATMs/ mobile point of sales (micro ATMs) for their customers made possession of large network of ATMs no more an idiosyncratic technological resource for banks. The diffusion of innovation and easy access of technological resources facilitated mimetic isomorphism whereas adoption of standards of industry enhanced normative isomorphism in Indian banking industry.

Post reforms, the differentiation between Indian banking and non-banking financial services have diminished (Karunagaran, 2006). He argues that this overlapping in functions of the banking and non-banking services combined with the intense competition has reduced the interest spread ratio of all groups of the banks irrespective of their ownership status. This
has not only reduced the individual group’s spread ratio but also lessened the gap of spread ratio between different bank groups. The spread ratio has decreased from 4.02 and 3.22 in March’ 1991 to 2.30 and 2.72 in March’ 2006 for private and public sector groups respectively. Therefore, this drastic decrease in interest margin compelled the banks to search for non-traditional and fee based financial services (Karunagaran, 2006). The opening of insurance sector for banks by the regulator, the RBI and IRDA, and Indian government has provided the opportunity for the banks to diversify in non banking financial service sector and adopt bancassurance strategy. The ICICI bank, HDFC bank from private sector and SBI from the public sector have taken the lead to adopt bancassurance strategy through set up of its own subsidiary. Most of the other banks have followed them by either setting up of its own subsidiary, or adopting corporate agency, referral arrangement, blending of banking products with insurance products, brokering of insurance products model (Karunagaran, 2006). These activities suggest the coercive and mimetic isomorphism in diversification strategy of private and public sector banks. The synthesis of theoretical conceptual arguments as well as the Indian banking industry data suggests that isomorphism is likely to exist in strategic behavior of the firm even in normal situation i.e. low institutional uncertainty.

Under high uncertainty, managers are inclined to be more proactive, risk taking and innovative (Khandwalla, 1976; Miles and Snow, 1978; Paine and Anderson, 1977). Further, prospectors may consider uncertainty as opportunity whereas defenders are likely to consider this as dilemma (Meyer, 1982). The organizations, perceiving the environmental opportunity, tend to demonstrate higher level of exploration (innovation) (Voss et al., 2008). Gilbert (2005) contends that firms are unlikely to adopt innovation in absence of external threat due to their apprehension of loosing customer base. Thus, organizations possessing opposite strategic archetypes- prospectors and defenders exhibit equifinality in adoption of innovation, though due to different reasons. The literature also evidences the change of strategic
orientation by Canadian bank from defender to prospector orientation under high environmental uncertainty (Sokol, 1993; Rogers and Bamford, 2002). Behavioral uncertainty of institutions coupled with deficient market conditions may inhibit the firms to develop the resources/ capabilities and leverage it alone in emerging economies context (Li, and Wong, 2003), thus suggesting the increased mimetic isomorphism under high institutional uncertainty.

Archival reports of RBI suggest that average capital to risk adjusted ratio was 12.6% against mandatory regulatory requirement of 9 % and Basel norms of 8% at the end of March’2008. This had provided the cushion to the banks not to restrain to invest in risky projects. Out of 46 banks, seventeen banks including many major banks from both private sector as well as public sector e.g. State Bank of India and Bank of Baroda, Punjab National Bank, IDBI Bank, Central Bank of India, Bank of India, ICICI, Axis Bank, Federal Bank had the significant exposure in to Kingfisher Airlines (Times of India, 2014). The exposure of the commercial banks to the real estate sector has increased 64% and 49% for private sector and public sector respectively from 2010 to 2014 in expectation of higher returns. These activities of the banks exhibit the higher risk taking behavior of the banks, a salient feature of the prospector orientation. In light of global financial crisis World Bank states that regulation is detrimental to the institutions it is designated to protect, if it is too stringent or too slack (Word bank, 2008). Further, Financial innovation aggravates the risk, while a stringent regulatory system inhibits the growth (Rajya Sabha report, 2009). However, RBI adopted the financial innovation route along with the stringency of regulation. At one end, the Indian banking regulation is more stringent than global standards (Mundra, Reserve Bank of India, 2015). They have also facilitated the responsible financial innovation (Economic Times, 2012). 39 banks had been provided license for offering mobile banking services till 2011 since the issue of guidelines in 2008 (Reserve Bank of India, 2011), one kind of innovation,
indicates toward the homogeneity in adopting innovation. Uncertainty of environment and facilitation of financial innovation by the regulator prompt banks to mimic for financial innovation. The adoption of technological innovation like mobile banking by large number of banks posits mimetic isomorphism in strategic behavior of the firms.

These arguments indicate the shift of Bank’s strategic orientation towards prospector orientation from defender and analyzer. Thus, theoretical arguments and Indian banking industry related facts converge towards increased exhibition of prospector strategic orientation by the banks and higher isomorphism under high institutional uncertainty.

I conceptualize that:

**Hypothesis H1a**: Firms in general exhibit isomorphism in their strategic orientation.

**Hypothesis H1b**: During high institutional uncertainty, firms in general exhibit prospector strategic orientation.

**Hypothesis H1c**: During high institutional uncertainty, firms exhibit increased isomorphism in their strategic orientation.

### 3.4.2 Strategic orientation and ownership

Strategic orientation has been contended as the cultural aspect of the firm (Weinzimmer et al., 2012) and the culture has been conceptualized as the intricate set of shared values, norms and beliefs (Barney, 1986; Denison, 1984; Goll and Sambharya, 1995; Jones et al., 2005). This set of shared values, norms and beliefs are disseminated within the firm through the behavior and activities of the employees (Wilkins and Ouchi, 1983; Schein, 1985). The ownership is considered an important determinant to categorize the firms in to different strategic groups (Peng et al., 2004).

Managers of the firms that face stiff competition encounter higher ability of learning from their competitors (Barnett et al., 1994), but little support has been found for managerial learning through competition for state owned enterprises (Goldeng et al., 2008). Further,
private owned enterprises are more efficacious in attracting the managerial talent. The knowledge acquisition in the form of new managerial talent and the knowledge development through learning curve effect facilitate the firm to foster innovation in the firm, which public sector banks lag. Further, bureaucratic system of the state owned enterprises (SOEs), difficulty in adoption in transition from centrally planned economy to market economy inhibits the innovation and vision in SOEs (Cai, 2004; Ren et al., 2006; Mak, 2008; Tajeddini and Trueman, 2015). Government ownership of the public sector banks demand the accountability from the managers just like the bureaucrats which entails the strict compliance of laid down rules and procedures (standard operating procedures) (Ahluwalia, 2002). This intent of the compliance of the rules and procedures inhibits the flexibility, thus restrains the innovation in decision making of Public sector banks. Innovativeness is one of the key characteristics of the prospector, thus private sector is likely to have more prospectors.

According to agency theory, managers opt for diversification strategy to lessen the variability in their earnings (Fama and Jensen, 1983; Jensen and Meckling, 1976), thus positing the ownership structure to be a critical determinant of firm’s diversification strategy. The empirical investigation in Indian contexts suggests that government ownership, a passive investor, is not associated with firm’s diversification (Ramaswamy et al., 2002).

Peng et al. (2004, p. 1119) contend that State owned enterprise discern their environment as “more hostile, dynamic, and complex”. They further state that SOEs are likely to exhibit less risky, less proactive and less aggressive behavior than the POEs. Research scholars argue that SOEs possess narrow product profile, stable customer segment and bureaucratic structure which is managed by comparatively older and traditional workforce (e.g. Arens and Brouthers, 2001; Tan, 2001). These characteristics of SOEs resemble with defender strategic orientation and empirically been investigated (Peng et al., 2004).
Second, salient feature of the prospector is that they operate in broad product–market domain (Miles and Snow, 1978), which posits the higher diversification of the prospectors. Though there has been impressive growth in proportionate income from other sources of public sector banks, but still they are way behind the private sector. SBI is laying emphasis upon provisioning of fee based services to the customers and leading the public sector pack with 12% of other income to total income ratio in 2014 against 19.4% for Axis Bank and 19% for ICICI Bank. Other income contributed 15.8% to the total income of private sector banks whereas it has been mere 9.5% for public sector banks in 2014 (RBI Archival Reports, 2014). Though there has been improvement in technology and skills, but public sector banks procrastinate behind private sector banks in technological systems, offering of fee-based services, sophisticated products and derivatives.

The synthesis of these arguments suggests that more number of banks from private sector is likely to fall under prospector category than public sector and thus, I postulate the hypothesis as under:

Hypothesis $H2a$: Group of firms with private ownership (POEs) has more prospectors.

Hypothesis $H2b$: Group of firms with public ownership (SOEs) has more defenders than private sector firms (POEs) group.

3.4.3 Strategic orientation and organizational slack

I adopt definition of organizational slack (OS) as a stock in ‘excess of minimum resources’ entailed for production of ‘given level of output’ (Nohria and Gulati, 1997). The organization theorists conceptualize organizational slack as a resource (Cyert and March, 1963) while agency theorists view that slack fosters inefficiency (Leibenstein, 1969; Jensen, 1993). OS can be categorized into absorbed slack resources that are tied up with operations in organizations and cannot be redeployed easily; and un-absorbed slack or ‘uncommitted resources’ that is easily re-deployed elsewhere (Sharfman et al., 1988; Tan and Peng, 2003).
Penrose (1959) contends that intra firm learning, resource indivisibility and balance of processes explicates the creation of slack. New knowledge is created by the firms ‘through division of labor, specialization, combination of resources, teamwork and learning’ that facilitate to generate the excess resources (Pitelis, 2007).

In case of defenders, this new knowledge is experience curve learning that increases the efficiency routinization process, thus creating slack. The slack comprises of “excess inputs such as surplus employees, idle capacity, and capital expenditures” (Noharia and Gulati, 1997, p. 604). The first two type of slacks- surplus employees (HR slack) and idle capacity (operational slack) is more likely to take form of absorbed slack whereas the third one – capital expenditure (financial slack) may be categorized as un-absorbed slack. Defenders aggressively pursue market penetration strategy through competitive pricing to gain market share within their niches. Defenders propound the agency theorist view of OS being linked to inefficiency. Slack can facilitate the endogenous growth and innovation, if the management’s objective is to gain maximum profit and profess that excess resources can profitably be utilized at nearly zero marginal cost (Pitelis, 2007). Given that defender’s proclivity is to attain maximum profitability, they are likely to achieve the endogenous growth through scale economies by putting idle capacity to use and thereby reducing the operational slack. Therefore they tend to focus on process innovations to facilitate their low cost strategies. Further, defenders focus on market penetration and are likely to pursue process innovation than product development. Process innovation can facilitate firm’s low cost producer strategy (Davenport, 2013). Thus, the defenders will be nearing towards the efficiency frontier and the firms that are on efficiency frontier will push the efficiency frontier outward. Two perspectives exist in terms of defender – OS linkages. One perspective posits that defenders would be creating slack through efficient process and adoption of new technology. Slack thus created would be used for production through aggressive competitive
pricing, improvement in product quality. In the second perspective, attaining the “high levels of capacity utilization” is the salient characteristics of defenders (Ramaswamy et al, 1994, p. 65), thus profitable utilization of capacity would reduce the operational slack. Defenders extensively invest in single core technology to increase the technical efficiency (Miles and Snow, 1978), which will increase the automation and in combination with efficient processes, reduce the requirement of human resources, thus reducing the relative HR slack. Defenders may even adopt the downsizing route to improve the cost efficiency, if the surplus manpower is not expected to be used in short run. Therefore, combining both the views, at one end the defenders will be generating absorbed slack through their experiential learning, specialization, routinization, division of labor, while at the other end they will be utilizing the absorbed slack through their aggressive market penetration strategy. This is the recursive process and in the whole process, they will be reducing the absorbed slack (compared to other firms in the industry) and converting the absorbed slack in monetary terms through the production of goods/services and thus increasing the un-absorbed slack (financial slack).

While the emphasis of defenders is on exploitation of existing product-market domain through economy of scales, prospectors explore and exploit the new market- new product domain through economies of scope. Economies of scope likely to entail heterogeneous resources and processes for the production of a variety of products/services. Since the indivisibility of resources and balancing of processes creates slack (Penrose, 1959), requirements for heterogeneous resources and processes generate greater slack (absorbed) for prospectors. But, the prospectors do not appear to conform to agency theorist's view that consider the slack as sources of inefficiency, as the prospectors accentuate on effectiveness rather than efficiency. Miles and Snow (1978) also argue that prospectors are poor on utilization of resources. The prospectors would not be able to properly utilize resources, thus generate absorbed slack. Further, prospectors are characterized as innovators.
(Miles and Snow, 1978) and optimal level of slack is required for innovation (Noharia and Gulati, 1997). Prospectors have the decentralized control and horizontal information system (Miles and Snow, 1978), resource allocation among the units may cause a conflict and slack may be used “to alleviate the intra firm conflict” (Cyert and March, 1963; Pitelis, 2007, p. 479). These arguments favor that prospectors are likely to have more absorbed slack. Prospectors may not consistently attain the level of the high profitability as of ‘more efficient defenders’ (Miles and Snow, 1978). Huge financial resources may be required for market development and product development. Research scholars contend that firms which perceive opportunities will hold more slack and the firms that perceive threats hold less slack (Sharfman et al., 1988). Prospectors keep on exploring new opportunities for market development and product development thus will be holding more absorbed slack.

Consequently I hypothesize that:

Hypothesis 3a: Ceteris paribus, firms adopting defender like SO hold less absorbed slack than prospectors.

Hypotheses 3b: Ceteris paribus, firms adopting defender like SO hold more unabsorbed slack than prospectors.

Thus, pattern of slack utilization by the two different groups of the firms, possessing prospector and defender orientation, can be depicted in the matrix form as under:

<table>
<thead>
<tr>
<th>Slack</th>
<th>Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anabsorbed Slack</td>
<td>Unabsorbed Slack</td>
</tr>
<tr>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

Fig 3.1 Depiction of strategic orientation of firm and its possession of organizational slack
3.4.4 Strategic orientation and firm performance

Literature posits that strategic behavior of the firm is the critical determinant for its successful performance (e.g. Covin and Slevin, 1989; Miles and Snow, 1978; Venkatraman, 1989; Wiklund, 1999; Zahra, 1991). However literature reports inconsistent findings between adopted SO and performance. While some scholars have assigned higher performance to the cost efficient, existing product market exploiting defenders, others have assigned superior performance to long term growth oriented and exploring prospectors (Ramaswamy et al., 1994). Yet others have reserved the top slots for analyzers (Yadong and Seung, 2001). The confluence of time dimension with the measures of performance (Morgan and Strong, 2003; Weinzimmer et al., 2012), contextuality (country, industry etc) or construct definition may be at the root of this inconsistency. For example, scholars have operationalized performance construct as ROA, ROTC (e.g. Ramaswamy et al., 1994), ROA, sales growth, competitive position/market share (e.g. Yadong and Seung, 2001), ROA, ROE, ROS (Thomas and Ramaswamy, 1996). Defenders are efficiency seeker whereas prospectors emphasize on long term growth oriented performance means effectiveness seeker. Thus, the difference in performance between the two archetypes can be explained on time dimension. The defenders are likely to have positive association with efficiency (short term profitability) related performance parameters. However, prospectors may outperform defenders on effectiveness (long term performance measure) related performance parameters. In view of the above, I propose the following hypothesis:

Hypothesis 4a: Defenders exhibit superior performance on efficiency related performance parameters.

Hypothesis 4b: Prospectors exhibit superior performance on effectiveness related performance parameters.
3.4.5 Strategic orientation, institutional uncertainty and firm performance

The findings on the association of strategic orientation with firm performance are not consistent (Ramaswamy et al., 1994; Yadong and Seung, 2001). One of the key sources of these inconsistencies may be environmental factors. Research scholars further contend that different strategic archetypes may be favored by different environmental settings (e.g. Hambrick, 1983). The determinants of environmental uncertainty that are considered important may include extent of predictability of financial and capital market, regulation and government intervention, competitor’s and supplier’s actions, general conditions encountered by the firm (Hrebiniak and Snow, 1980). All the factors except supplier’s actions and competitor’s action may be categorized as institutional factors. The exogenous factors—US subprime problem and European Union crisis, caused the high volatility in financial and capital market and this forced the regulator and Indian government for frequent intervention. At the same time, endogenous factors created the perception of uncertainty about general conditions of bank. Compliance to institutional rules may enhance the fit of organization with environment, leading to improvement in performance (Venkatraman and Prescott, 1992; Oliver, 1997). Tan and Lischert (1994) further contend that alignment of strategy and environment is an important determinant of firm performance in complex and volatile market environment. The higher environment scanning capability and flexibility facilitates the prospectors to quickly adapt to the environment (Miles and Snow, 1978). Thus, Prospectors may attain superior performance under high institutional uncertainty through their greater degree of alignment with the environment. Whereas opposite conditions i.e. stable environment may be conducive for defenders. The main risk of the defenders is their inability to respond to environmental changes (Miles and Snow, 1978; Yadong, & Seung, 2001). Further, empirical investigation of Zajac and Shortell (1989) had also found that prospectors
have superior performance than defenders in dynamic health care environment in US context. Thus, I hypothesize that:

**H5a: Under high institutional uncertainty, prospectors perform better than defenders.**

**H5b: Under low institutional uncertainty, defender perform better than prospectors.**

### 3.4.6 Strategic orientation, ownership and firm performance

Extant literature posits that findings on association of strategic orientation and firm performance are inconclusive. This inconsistency of the findings indicates towards the presence of some moderating variable for this linkage. Ownership status of the firm may be one of such contingent variable.

Shleifer (1998) contends that private ownership incentivizes the innovativeness. Research scholars reported that managers of state owned enterprises are less innovative and more risk averse than entrepreneurs of privately owned enterprises (e.g. Nee, 1992; Tan, 2001). The contrarian view suggests the positive association of state ownership with innovation performance in Korean and Chinese context, making the association between two inconclusive (e.g. Choi, Lee & Williams, 2011; Choi, Park, & Hong, 2012). Attitude of managers of POEs towards the growth is more aggressive than the managers of SOEs (Miles and Snow, 1978; Peng, Tan and Tong, 2004). In Indian banking sector context, Ahluwalia (2002) argue that Government ownership of the Indian public sector banks demand accountability from the managers just like the bureaucrats which entails the strict compliance of laid down rules and procedures (standard operating procedures), which is in line with the view of majority of researchers. Accountability of the Indian public sector banks towards multiple governmental agencies like Central Vigilence Commission, Central Bureau of Investigation, C&AG audit, various statutory commissions and parliamentary committees constrain their autonomy and their actions to deviate from laid down rules and procedures. This intent of the compliance of the rules and procedures inhibits the flexibility, thus restrains
the innovation in decision making of Public sector banks. The empirical investigation in Indian context suggests that government ownership, a passive investor, is not associated with firm’s diversification (Ramaswamy, & Veliyath, 2002). These arguments suggest that private sector banks are likely to exhibit more prospecting behavior than public sector banks.

Private ownership also incentivizes the efficiency (Shleifer, 1998). The incentive system of POEs does not promote the efficiency (Goldeng, Grünfeld, & Benito, 2008). They argue that problem in individual incentive system of POEs, due to non-linking of owners (representative of the government managing the company)/ manager’s wages with performance of the SOEs and job security, do not incentivize them for good performance. Availability of softer budget and SOE’s non–subjugation to the disciplining laws of capital market indicates towards problem of organizational incentive system, while POEs are punished by the capital market for their bad performance and vice versa (Megginson and Netter, 2001). Managers are supposed to concentrate on market for their organization’s survival and success, but they get rewarded more for their capabilities for effectively dealing with the politicians (Mar and Young, 2001; Tan and Peng, 2003). Further, imperfect government that maximizes its political motto through patronage or bribing may further worsen the performance of state owned firms (Shleifer, 1998). Thus, private sector may be more efficient than public sector banks.

Literature suggests that privately owned firms (POEs) perform both efficiency enhancing activities and prospecting activities viz risk taking and innovative better than publicly/state owned enterprises (SOEs) (Shleifer, 1998; Goldeng et al., 2008). But, defenders and prospectors lie on extreme end of the continuum. Thus, both types of activities, that are mutually exclusive, can not be performed in better manner by a single privately owned enterprise. Further, research scholars contend that some firms pursue strategy closely and such firms may be categorized as ‘core’ firms whereas other firms pursue strategy less
closely thus can be named as ‘peripheral’ firms (Peteraf and Shanley, 1997; McNamara et al., 2003). The membership of a strategic group is a matter of degree (Reger and Huff, 1993). Thus, more number of private sector banks may be the core firms of their respective strategic archetype group. Therefore, I argue that POEs are likely to exhibit the core characteristics of their strategic archetype in better manner than SOEs, means POE prospectors would be involved in more innovative and risk taking activities than prospectors of public sector. But, defenders of private sector banks are likely to be less innovative than SOE defender due to their emphasis on efficiency which is in consonance to the behavior of their strategic archetype. Thus, POE defenders would be performing better than SOE defenders on efficiency related parameters. Similarly, POE prospectors would be performing better on effectiveness related parameters. But, SOE defenders may outperform POE defenders on effectiveness related parameters. While SOE prospectors may perform better on efficiency related parameters.

Synthesis of these arguments posits that:

\[
H6a: \text{POE defenders perform better than SOE defenders on efficiency related performance parameters.}
\]

\[
H6b: \text{POE prospectors perform better than SOE prospectors on effectiveness related performance parameters.}
\]

3.4.7 Strategic orientation, institutional uncertainty and slack

Extant literature suggests that institutional environment encountered by firm influences the organizational slack (Guillen, 2000; Wright et al., 2005). Prospectors encounter with more uncertainty and volatility in the environment. They create slack to protect its core from uncertainty (Thompson, 1967; Jauch and Kraft, 1986). During low uncertainty period, defenders accumulate large amount of financial resources and remain understaffed due to their emphasis on efficiency (Meyer, 1982). He further found that prospectors hold small
reserves and are overstaffed. Meyer (1982) argues that defenders absorb uncertainty through utilization of their financial resources (unabsorbed slack) during environmental jolt. The prospectors respond to the uncertainty by reducing staff (absorbed slack). The adverse effect of institutional uncertainty on absorbed slack is likely to be less pronounced for defenders than prospectors. Thus, decrease in absorbed slack of defenders will be comparatively less than prospectors under high uncertainty, though both - prospectors and defenders are likely to shed absorbed slack under high uncertainty. Further, prospectors are risk seekers and take the uncertainty as opportunity to innovate and diversify. These activities entails the financial resources, thus maintain minimal amount of reserves. Though, defenders may also tend to engage in innovative activities during environmental uncertainty but they do not emphasize on diversification and the innovation activities. Further, defenders exhibit conservative orientation, hence will hold cash and reserve during high uncertainty. RBI reports also suggest that non-interest income particularly of private sector banks, which comprises maximum prospectors, had increased significantly during high uncertainty period. Thus, I hypothesize that:

Hypothesis 7a: The institutional uncertainty negatively moderates strategic orientation – absorbed slack linkage.

Hypothesis 7b: Under high institutional uncertainty, defenders hold more unabsorbed slack than low uncertainty.

3.4.8 Strategic orientation, ownership and slack

The main objective of the POEs is generally economic performance whereas SOEs objective comprises two dimensions- social and economic, thus leading to different slack creation and utilization pattern (Aharoni, 1981). The SOE’s behavior predicts that the goals may be aligned with the policy preferences of the various participants of the firm’s coalition (Caves, 1990). One of the objective of SOE could be “choice of policies that maximize political
support and independence” from external interferences. Further, managers direct the firm in a manner that facilitates them to attain personal economic or political mileage like senior position in Government (Hung et al., 2012). Therefore, SOEs are not able to minimize the cost as the rent (slack) is captured by the dominant coalition of the firm that hold bargaining power (Caves, 1990). Despite of possessing the plethora of resources and receipt of governmental support, SOEs suffer from inefficiency (Tan, 2002; Peng et al., 2004; Li and Zhang, 2007). Further, resources are deployed in such a manner that facilitates the firm to gain political support, thus fosters the allocative inefficiency (Caves, 1990). Literature reports the evidences of “inefficient management structures and ineffective policies” particularly use of manpower (Utton, 1986, pp. 178-187). He states that British Steel and British Airways reduced the manpower about 50% and 36% respectively during 1980 and 1985, when these organizations were on the verge of privatization. Excess employment under union pressure and the subsidy from the government was absorbed as slack in the organization (Pryke, 1981). The survival of the firm (SOE) may be more important for its stake holder (Government) than attaining economic performance due to several reasons like national security, employment generation (Meyer and Zucker, 1989), particularly in transitional economies.

Similarly, Indian public sector banks open more branches in rural/remote areas than private sector banks, though these may be unprofitable for the bank and are cross subsidized through the revenue from the profitable urban area branches. One of the main reasons of high NPA of public sector banks has been attributed to their susceptibility to political pressures for priority sector lending (Reserve Bank of India Committee Report, 2014). The Committee to Review Governance of Boards of Banks in India states that “Governance difficulties in public sector banks arise from several externally imposed constraints. These include dual regulation by the Finance Ministry in addition to RBI………..” (Reserve Bank of India Committee
These recommendations are in line with the arguments in extant literature on allocative and operational inefficiency, thus fosters slack within the PSU bank.

A soft budget constraint is an important feature of SOEs in emerging economies (Kornai, 1992). This enables the SOEs to get bailed out by Govt when they are not able to meet out cost from their revenue (Kornai, 1992). In Central economic planning financial performance is not accentuated, however, emphasis is laid on production quantity (Tan and Peng, 2003). Assuming the emerging economies as ‘economies of shortage’ (Kornai, 1992), pressure to meet out the plan results into accumulation of everything e.g. material to manpower (Tan and Peng, 2003). This situation has been described as ‘just in case’ against the ‘just in time’ in western economies (Peng and Heath, 1996: 508). This ‘just in case’ set up leads to possession of abundance of slack (Majumdar, 1998).

The resource allocation decisions are mainly governed by the strategic behavior of the firm. However, Ju and Zhao (2009) contend that resource allocation decision of SOEs favors to be less efficient, thus, leading to high absorbed and unabsorbed slack. In earlier section, it has been conceptualized that prospector would be possessing high absorbed slack while defenders would be holding high un-absorbed slack. But, possession of both high absorbed and unabsorbed slack simultaneously by a particular SOE indicates an inconsistent behavior. Further, membership of a strategic group is a matter of degree (Reger and Huff, 1993), ownership of the firm is also a determinant of this extent of membership of the strategic group. Thus, defender POEs would be possessing lower absorbed slack and higher unabsorbed slack than SOE defenders. While prospector POEs would be possessing higher absorbed slack and lower unabsorbed slack than SOE Prospectors.

On the basis of synthesis of these arguments, I postulate that:

_H8a: POE defenders hold less absorbed slack than SOE defenders._

_H8b: POE defenders hold more un-absorbed slack than SOE defenders._
3.5 Methodology

Literature posits that typologies are useful to investigate the realized strategy of the firms rather than intended strategy (Hambrick, 1980; Mintzberg and Waters, 1982). Consequently I have endeavored to capture realized strategy of the firm, using objectively determined secondary data. The context of my study is the Indian Banking Sector consisting of 26 public sector banks (Government of India, through President, has majority stakes) and 20 private sector banks (public and institutional investors have majority stakes). These 46 banks, within themselves, account for more than 80% of the USD 1.8 Trillion Indian banking industry (2014) and is likely to emerge as the third largest banking industry in world by 2025 (according to KPMG-CII report). In the present study, I have considered SO as a business level strategy (Hambrick, 1983). To control the corporate strategy effect viz. diversification, operation in multiple product-market segments (Venkatraman, 1989), the condition of minimum 70% revenue from single industry is posited (Rumelt, 1974). More than 70% of revenue of public sector banks and private sector banks comes from interest income. I collected basic data from the archival reports (Financial reports of banks) of Reserve Bank of India, Capitaline Plus and CMIE database.

The period of the study has been divided into three sub-periods, 2009-14, 2006-08 and 2001-05. The rational behind the division of the period has been global, domestic activities that had impacted the Indian banking sector. During 2001-2005, major downsizing of the public sector banks that had particularly involved several large PSUs- State Bank of India, Punjab National Bank, Canara Bank and Bank of Baroda was implemented. Due to the possession of the large proportion of assets by public sector banks, the downsizing activity might have brought the volatility in internal task environment of these banks. Objective is to investigate the influence of institutional environment on slack and firm performance, hence the period 2001-2005 was purposefully eliminated to delineate the effect of institutional
environment from internal task environment. Thus, 2006-2014 period has only been considered for this study. The average value, over each sub-period, has been computed for each variable to smoothen the exogenous random effect. Income from interest has been taken as sales.

3.5.1 Measures

Dependent variables

3.5.1.1 Organizational slack: In this study, I used Selling, General and Administrative (SGA) expenses to Sales (Bergh and Lawless, 1998; Patel and Chrisman, 2014) and quick ratio (Davis and Mizruchi, 1999; Ju and Zhao, 2009) for measurement of absorbed slack and unabsorbed slack respectively. Per se, SGA expenses were not reported in Capitaline Plus and CMIE databases, nor were they available for all the banks. Hence I used Payments to Provisions for Employees, Operating Expenses and Administrative Expenses and Depreciation expenses to deduce SGA.

3.5.1.2 Firm performance: Researchers contend that firm performance is a multidimensional construct (Venkatraman and Ramanujam, 1986) with efficiency and effectiveness being the two principal dimensions (Venkataraman, 1989; Auh and Menguc, 2005). Therefore I used ROA (Auh and Menguc, 2005), ROS (Auh and Menguc, 2005) and ROE (Wang and Ahmed, 2007) to measure efficiency aspect of performance while sales growth (Auh and Menguc, 2005) has been used to measure effectiveness aspect of firm performance.

Independent variables

3.5.1.3 Strategic orientation: Given that prospectors have external orientations while defenders are internal efficiency driven, prospector SO is operationalized as Marketing Expenditure to Sales (Thomas and Ramaswamy, 1996). Defender SO is operationalized by Business/Employee and ratio of operating expenditure to sales (OPEX/Sales) (Thomas and
Ramaswamy, 1996), as these variables may be taken the proxy for efficiency. Since banks do not perform R&D activities, hence R&D expenses to sales have not been taken to measure the prospector SO.

The clustering analysis has been employed to profile the clusters on the basis of their behavioral characteristics. The strategic orientation variable thus deduced – prospectors, defenders and analyzers/reactors have been coded as 1, 2, 3 respectively. The strategic orientation has been used as categorical variable.

3.5.1.4 Institutional uncertainty

The arguments suggest the presence of high institutional uncertainty during 2009-14. The 2006-08 period is considered as base period- low uncertainty period. Hence, this variable has been dichotomized with the coding of high uncertainty period as ‘1’ and low uncertainty period as ‘0’.

Policy uncertainty has been considered an important constituent of institutional uncertainty (Brunetti, & Weder, 1997; Delios & Henisz, 2003). Policy uncertainty has been operationalized by economic policy uncertainty index (e.g. Bhagat et al., 2013). The values of economic policy uncertainty index for India have been plotted over the period of study 2006-14 (Fig 3.2). The consistent high values of index over the period of 2009-14 validate the characterization of 2006-08 and 2009-14 as low uncertainty and high uncertainty period respectively.

3.5.1.5 Ownership

The ownership variable has been dichotomized by coding state ownership as ‘0’ and private ownership as ‘1’.

3.5.1.6 Control variables

I control for firm age, firm size, as these are likely to influence out come variables- performance and slack (Tan & Peng, 2003; George, 2005; Love and Nohria, 2005; Peng et
al., 2007) but are not included in my theoretical conceptualization. Age is associated with the institutional norms/ routines and affects the inertial behavior (Tushman and Romanelli, 1985). Firm age was deduced by taking natural log of difference between year of incorporation of firm and 2014 (Finkelstein and Hambrick, 1996). Prior studies have mainly taken either total assets, total sales or number of employees as a proxy for firm size. In this study, number of employees would be appropriate to be controlled, as it is related to inertia – ‘difficulty in processing information related to changing resources, and failure to adapt to changing resource conditions’ (e.g. Tushman and Romanelli, 1985). Firm size was calculated by taking natural log of number of employees.

**3.6 Model specification**

My study entails two stage models to analyze the data. First, cluster analysis was employed to characterize the firm as a prospector, defender or analyzer/reactor for both the period i.e. 2006-2008 and 2009-14 separately. Owing to the difficulty in identification of analyzers and reactors, most of prior researches have considered only prospectors and defenders for empirical investigation (e.g. Veliyath and Shortell, 1993; Ramaswamy et al., 1994; Thomas and Ramaswamy, 1996; Koka et al., 2006). Thus, cluster analysis is expected to return two clusters. The minimum requirement of sample size is $2^n$ where $n$ is the number of variables used in clustering (Formann, 1984; Sarstedt and Mooi, 2014). Thus, sample size of 46 cases with three variables complies with the requirement of minimum sample size for clustering.

After the clustering of banks, deduced variable of strategic orientation was used in panel data analysis. My data is short panel data, containing two panels of 46 public & private sector banks. The advantage of the panel data analysis is that it (i). captures both temporal effect for entire sample and cross sectional effects for individual units (Baltagi, 2001; Hsiao, 2003) (ii). adjusts for unobserved heterogeneity and increases the sample size to facilitate the improvement in statistical estimates (Kmenta, 1996). My conceptualization proposes,
following six models, four performance parameters and two slacks, that are to be tested separately;

Organizational Slack = b0 +b1Size + b2 Age + b3 ownership+b4 Strategic orientation + b5 Institutional Uncertainty + b6 Institutional Uncertainty x Strategic Orientation + b7 ownership x Strategic Orientation

Performance = b0 +b1Size + b2 Age + b3 ownership+b4 Strategic orientation + b5 Institutional Uncertainty + b6 Institutional Uncertainty x Strategic Orientation + b7 ownership x Strategic Orientation

Lagrange Multiplier test was employed to ascertain the appropriateness of my data for panel analysis (Breusch and Pagan, 1980). The result rejects the null hypothesis for all the models except Sales Growth Model. This suggests that the data is more appropriate for panel data analysis than pooled OLS. However, Sales growth performance data favors for Pooled OLS analysis. Then Hausman test was conducted to find out the suitability of data for fixed or random effect models within panel data analysis. The Hausman test posits that there is no significant association of independent variables with firm level fixed effects but fixed effect panel was found more appropriate for one model of ROE (Hausman and Taylor, 1981). Thus, I employ random effect panel analysis for all models except one model of ROE for validation of my hypotheses. On the basis of Breusch and Pagan LM test and Hausman test, appropriate data analysis for each of the model is listed (Table 3.1).

------------------------
Table 3.1 about here
------------------------
3.7 Results

The data analysis was conducted in two stages i. cluster analysis ii. Regression analysis, accordingly explicated here.

3.7.1 Cluster analysis

First, cluster analysis was employed to characterize the firm as a prospector, analyzer or defender. Owing to difficulty in identification of analyzers and reactors, most of prior researches have considered only prospectors and defenders for empirical investigation (e.g. Veliyath and Shortell, 1993; Ramaswamy et al., 1994; Thomas and Ramaswamy, 1996). This study would also be characterizing banks as prospectors or defenders and the outlier cases may be categorized as analyzers/reactors with no distinction between these two strategic archetypes. The correlation above .9 between the clustering variables is considered as high degree of collinearity and thus problematic for cluster analysis (Sarstedt and Mooi, 2014). The descriptive statistics suggests the highest correlation of .39 and .66 between Opexp/sales and Business/employee variables for 2006-08 and 2009-14 respectively, which is acceptable for cluster analysis.

The cluster analysis is sensitive to the magnitude of the variables (Hair et al., 2010, pp 524). The magnitude of business/employee variable is much higher than other two variables; hence the analysis was carried out with standardization on z-score in SPSS (V-20). The Hierarchical clustering method was used for segmenting the 46 public and private sector banks into prospector and defender strategic archetypes for each of the two sub periods and afterwards k- means clustering procedure was used. The cluster analysis returned two consistent clusters for two sub-periods i.e. 2006-08 & 2009-14, after exclusion of outlier cases. The prospectors group is characterized by high Marketing exp/sales, high operating exp/sales, and low business/employee whereas defenders possess low Marketing exp/sales,
low operating exp/sales, and high business/employee (Table 3.2). The excluded cases may fall under either analyzer or reactor strategic archetype.

Accordingly, prospector, defender and analyzer/reactor clusters comprise 21, 21 and 4 cases respectively for 2006-08 sub-period whereas 30, 15 and 1 case are characterized as prospectors, defenders and analyzers/reactors respectively for 2009-14 sub-period (Table 3.3).

The equal number of banks possesses prospector and defender orientation, whereas remaining archetypes analyzers/reactors are mere 8%. Thus, H1a hypothesis is not supported. The banks in largest strategic archetype group i.e. prospector have increased from 46% in 2006-08 to 65% in 2009-14 periods, which posits the increased exhibition of strategic homogeneity among the Indian banks during high institutional uncertainty. These findings suggest that several banks have altered their strategy from defender or analyzer/reactor to prospector. Thus, hypothesis H1b and H1c are supported.

Public sector segment is comprised of 42% and 61% prospectors in 2006-08 and 2009-14 periods respectively. Expectedly, private sector contains much higher proportion of prospectors and the same is 61% in 2006-08 period and 90% in 2009-14 period. Thus, hypotheses H2a and H2b are supported.
3.7.2 Regression analysis

Descriptive statistics and correlation coefficients for all variables are elucidated in Table 3.4. The correlation table demonstrates that correlation coefficients are not high among the variables except correlation coefficient between size and ownership; and ROS and ROE. I have employed Stata V12 for panel data/OLS regression analysis. The key basic assumptions for OLS regression is constant variance, absence of multicollinearity among independent variables. Further, multicollinearity among the variables was examined before conducting the data analysis. The average and highest value of VIF # were found as 1.5 and 2.1 respectively, which is much lower than the cut off value of 10 (Neter et al., 1996; Chatterjee et al., 2000; Kennedy, 2003). Thus, multicollinearity problem is not present in the data.

Table 3.4 about here

Table 3.5, 3.6 & 3.7 illustrate the results of pooled OLS and panel data analysis. Due to space constraint, the more suitable model, identified on the basis of Breusch-Pagan LM test and Hausman test, are only reported. The pooled OLS analysis is more appropriate for dependent variable Sales growth model whereas sample is found more suitable for random effect panel analysis for all other models but one model of ROE. ROE model finds support for fixed effect panel analysis. The same independent and control variables are regressed against slack (absorbed, unabsorbed) and performance (SG, ROA, ROS and ROE) variables. Model 1 for each dependent variable is my base model that includes only control variables. The strategic orientation, ownership and institutional uncertainty are included in data analysis in Model 2 and moderator variables – ownership and institutional uncertainty are added in Model 3 and model 4 respectively. The frequency of prospector strategic orientation is highest; hence prospector has been taken as the base strategy for investigating the impact of strategy on
dependent variable. The Wald chi-square statistics in Table 3.5, Table 3.6 and Table 3.7 indicates that all my models except models with mainly ROA dependent variable are significant and the addition of the variable increases the explained variance of the model, thus suggests the model fit.

The result suggests that age has negative effect on absorbed slack whereas size of the bank does not influence the absorbed slack. The negative coefficient of defender orientation indicates that defender banks hold less absorbed slack in comparison to prospector banks (p<.01). Thus, hypothesis H3a is strongly supported. I depicted the relationship of SO-absorbed slack for different level of ownership (Fig 3.5). The relationship between SO and absorbed slack is stronger for public sector banks (higher negative slope) than private sector banks. But, the investigation suggests that neither ownership nor its interaction term with strategic orientation influence absorbed slack. Thus, hypothesis H8a does not find support. Further, uncertainty reduces the absorbed slack in general, which supports my conceptualization and arguments. The SO-absorbed slack association is more strengthened for more certain situation than uncertain situation (Fig 3.4). But, the interaction of strategic orientation and uncertainty is not significant, thus fails to support the hypothesis H7a - moderation of institutional uncertainty on strategic orientation- absorbed slack relationship.

------------------------

Table 3.5 about here

------------------------

Hypothesis H3b proposes that defenders are likely to posses more un-absorbed slack than prospectors. Models 2 in Table 3.4 through model 4 tests this hypothesis, but the main effects of strategic orientation on un-absorbed slack are not found significant in any of these models. Thus, hypothesis H3b is not supported. Model 3 tests the moderating role of ownership on strategic orientation and unabsorbed slack linkage. The pictorial representation
suggests that the relationship between SO and un-absorbed slack is stronger for public sector banks than private sector banks (Fig 3.6). However, insignificant interaction of ownership with strategic orientation, lends no support for hypothesis H8b. The graph indicates that the unabsorbed slack continuously remains higher under high uncertainty situation for all firms except prospector. Under high uncertainty condition, slack of prospectors reduces to the level that is less than low uncertainty condition (Fig 3.3). The interaction of institutional uncertainty with strategic orientation was found significant (p<.05) and has positive association with unabsorbed slack. This indicates that defender’s un-absorbed slack relative to prospectors increases during high institutional uncertainty. Thus, hypothesis H7b, predicting the moderation of institutional uncertainty on strategic orientation- firm performance, finds support. In general Age positively influence the unabsorbed slack whereas size impacts the unabsorbed slack adversely.

----------------------------------

Table 3.6 & 3.7 about here
-----------------------------------

Hypothesis H4a and H4b predict that defenders and prospectors outperform other on efficiency and effectiveness related performance parameters respectively. Surprisingly, Model 1 through model 4 in Table 3.6 & 3.7 indicate that the type of strategy, banks adopt, does not impact their performance parameters except sales growth. The defenders have better performance (p<.10) than prospectors on sales growth parameter, which is contrary to my conceptualization. Thus, both the hypotheses i.e. H4a and H4b are not supported. Though the uncertainty, in general, adversely impacts the firm performance on SG and ROE parameters (p<.05), but it influences the ROS positively (p<.05). The pictorial depiction of SO-performance (SG and ROS) relationship suggests that the association of SO and performance is uniform and similar under high uncertainty and low uncertainty situation (Fig 4.8 & Fig
4.10). The ROE is higher for both defenders and prospectors under certain situation, but it approaches to the level of high uncertainty for third strategic group i.e. analyzer/reactor (Fig 3.11). Thus, hypotheses H5a & H5b are not supported. The ownership status of the bank does not influence the performance except ROA (though model insignificant) and ROS. Private Banks perform better than public sector banks on ROA and ROS. Though the interaction effect of ownership and uncertainty with strategic orientation is not significant, but its quasi moderation effect changes the sign of impact. Inclusion of interaction term of ownership and strategic orientation in model 3 changes the direction of influence of ownership on ROS from positive to negative. The sales growth of public sector group prospectors is higher than private sector prospectors, but the defenders of both private sector and public sector perform about equally well on sales growth parameter (Fig 3.7). However, empirical investigation does not posit the interaction between ownership and strategic orientation on SO-SG linkage significant. Both prospectors and defenders of Private sector banks perform better than public sector on ROS, but the third strategic group (Analyzers/reactors) of public sector banks perform better than private sector banks (Fig 3.9). This indicates towards presence of moderating effect of ownership on SO-ROS linkage. However, investigation suggests that ownership’s interaction with strategic orientation fail to influence performance (ROS). The interaction term of ownership and strategic orientation has been found significant on ROE, positing the defenders (relative to prospectors) of private sector banks perform poorly than defenders (relative to prospectors) of public sector banks on ROE performance parameter, which is contradictory to my conceptualization. Thus, hypothesis H6a & H6b are not supported.

The ownership, a time invariant variable, has been omitted from the model 3, hence the marginal plot depicting the moderating effect of ownership on SO-ROE linkage could not be drawn. But, as long as the effect of invariant variable is also invariant, the variable is
controlled irrespective of whether it is measured or not, as the ownership status of the banks in both the period is same. This is also interesting to see that size and age of the bank do not impact ROS and ROE. However, age and size both negatively influence the sales growth whereas ROE is, in general, positively associated with age and size of the banks.

#VIF test is not available with panel data GLS regression.

3.8 Discussion

My empirical investigation suggests the enhancement in isomorphism in their strategic behavior under institutional uncertainty and pressure. During high uncertainty, prospectors consider this changed circumstantial situation as an opportunity whereas defenders consider it as dilemma. Thus, the high institutional uncertainty (a situation of dilemma for defenders) facilitates the banks to follow the leaders in the industry and change their orientation from defender to prospector, which is in line with the findings of earlier studies (Sokol, 1993; Rogers and Bamford, 2002). Thus, enhances the isomorphism in their prospector orientation.

The association of strategic orientation with ROA, ROS and ROE is not supported while the relationship of SO with sales growth finds weak support (p<.10). The interaction of institutional uncertainty with none of the performance parameter is found significant. The panel results suggest that presence of strong institutions also reduces the difference in performance between the banks. The total variance of the dependent variable is explained by within the firm variance and between the firm variance. In the absence of institutional uncertainty, between the unit variance (difference between the units) is prominent in total variance. This suggests that there is larger heterogeneity in performance of firms in absence of institutional uncertainty. The introduction of institutional uncertainty reduces the cross sectional (between the banks) effect on performance parameter whereas temporal (within bank) effect on performance has been enhanced substantially. These findings posit that presence of institutional uncertainty increases the homogeneity in the performance of banks.
also. Thus, these findings support the institutional theory that firm mimics the strategies of the market leaders under institutional pressure, which also leads to reduction in heterogeneity in their performance. Further, these findings also indicate that Indian public and private sector banks observing different strategies have equifinalaity in performance. The key assumption of Miles and Snow (1978) typology is that prospectors, defenders and analyzers perform equally well as long as they maintain their distinct strategic archetype. This assumption was empirically investigated and conformed by some research scholars (e.g. Smith et al., 1989). However, other research scholars contended that different strategies find favor in different context (Hambrick, 1983; DeSarbo et al., 2005). Thus my findings support Miles and Snow (1978) and others viewpoint who advocate for equifinality in performance of the firms in a particular context irrespective of their pursuance of different strategies.

Under high uncertainty, defenders are found performing better than prospectors on sales growth performance parameter (though weak at p<.10), which is in contravention to my conceptualization that prospectors outperform on effectiveness parameter. The banks, that have not altered their strategic orientation, may attempt to reduce the uncertainty through adaptation (prospectors) or emphasizing more on their traditional domain (defenders). The sales are income from interest which comes from their core traditional domain- fee based income. During high uncertainty, prospectors emphasize on diversification and innovation while such defenders demonstrate their aggression on increasing market share in their traditional domain. Thus, defenders perform better than prospectors in their traditional domain i.e. growth in interest income.

There is mixed findings on association of ownership with efficiency related parameters. The Private owned banks outperform public sector banks on ROA whereas public sector banks perform better on ROS. But no significant difference has been found between two on ROE. Though the interaction of ownership with strategic orientation is non-
significant (for ROS), but this interaction turns the performance of private sector banks on ROS worse than public sector banks. In other words, under contingency of institutional uncertainty, private sector banks perform better than public sector banks on ROS. There is no significant difference between performance of public sector banks and private sector banks on SG. The significant interaction term between ownership and strategic orientation on ROE suggests that banking sector investors view performance of public sector defenders (relative to prospectors) better than private sector bank defenders (relative to prospectors).

The main effects of strategic orientation on unabsorbed slack is insignificant but interaction of strategic orientation with institutional uncertainty has significant impact on unabsorbed slack (p<.05). The unabsorbed slack is closely related to the performance, as higher profitability is likely to increase the current assets and thus unabsorbed slack. Thus equifianlity in performance parameters of both the strategies might be leading to the equifinality for unabsorbed slack also. Under high institutional uncertainty, comparatively high sales growth of defenders combined with pursuance of higher diversification and innovative activities by the prospectors (reduction in financial resources of prospectors) may have increased the relative unabsorbed slack of defenders. Thus, the interaction of strategic orientation with institutional uncertainty significantly influences the unabsorbed slack.

The association of strategic orientation with absorbed slack is negative and significant (p<.01). But the moderating effect of institutional uncertainty is non-significant which is against my theorization. According to Meyer (1982), prospectors reduce the staff under high uncertainty to reduce the absorbed slack. But, Indian banking industry comprises more than half public sector banks. Govt ownership of these banks does not permit them to retrench the staff. Further, laying off is not even easy for private sector banks in India due to stringent labor laws in comparison to developed countries. This may be the reason for non-significant interaction term of strategic orientation and institutional uncertainty on absorbed slack.
Though extant literature suggests that SOEs possess more slack than POEs, but I do not found the significant difference in slack of both type of banks (SOEs and POEs). The major restructuring of the public sector banks during 2001-2005 had reduced their staff strength significantly. There has also not been any recruitment at lower level in public sector banks till recent. These reasons might have resulted into no significant difference in absorbed slack between public sector and private sector banks within respective strategic group.

3.9 Conclusion

The examination of isomorphism in strategic behavior of the banks posits that isomorphism increases in the presence of significant uncertainty in environment. The findings are inline with the empirical results of extant literature that evidence the presence of mimetic isomorphism in banking industry (Deephouse, 1996; Deephouse and Carter, 2005; Barreto and Baden-Fuller, 2006). However, under low uncertainty, firms are likely to execute their own idiosyncratic strategies in mindful manner. Thus, low homogeneity in strategic behavior of the firms is expected to be demonstrated, which has been validated by the findings.

The findings on determination of impact of strategic orientation on possession of absorbed slack are in accordance with the conceptualization in extant literature. Subsequently, possession of absorbed slack is separately been influenced by strategic behavior and institutional uncertainty, but the interaction of both is not significant. This may be due to very less probability of retrenchment of staff in high uncertainty situation in Indian context irrespective of their strategic behavior. Interestingly, the unabsorbed slack is not dependent on the type of strategy being pursued by the banks. However, interaction of strategic orientation with institutional uncertainty significantly influences absorbed slack, possessed by the banks. The prospectors consider the institutional uncertainty as an opportunity to innovate and diversify. Pursuance of these innovative and diversification
activities require huge financial resources, thus reducing the unabsorbed slack. Under high uncertainty, defenders hold more relative unabsorbed slack in comparison to low uncertainty.

Banks pursuing prospector and defender strategy exhibit equifianlity in their performance. These results are similar in absence of institutional uncertainty, or presence of low/high institutional uncertainty except finding weak support for sales growth under environmental uncertainty. This suggests that both types of strategies are equally rewarding in Indian banking industry irrespective of extent of institutional uncertainty. These findings are inline with the Miles and Snow (1978) typology that all the success strategies perform equally well, if properly implemented.

3.10 Managerial implication

Findings of this study suggest to the managers that no distinctly identifiable success strategy is bad for the organization. Successful implementation of any of these strategy may lead to similar performance, thus banks may attain equifianlity in performance and unabsorbed slack. Under high institutional uncertainty, firms need to either change their strategies to more flexible and innovative strategy (prospector) or emphasize more on their core traditional domain to reduce the institutional uncertainty. The firms those implement their strategies successfully whether prospector or defender are likely to have superior performance. There is trade off between net benefits of innovation and diversification with net benefits of economies of scale through enhancement in efficiency. Thus, prospectors would perform better than defenders, if they are able to implement innovation and diversification strategies better than strategies of efficiency improvement by defenders, but not due to favor of prospector strategy by the environment. In this study, defenders performed better than prospector on sales growth performance parameter, because they emphasized aggressively on their core domain to increase the efficiency in high uncertainty environment and the same has also been reflected in the form of significant difference in absorbed slack than prospectors.
But, the prospectors have not been able to leverage the benefits of diversification and innovation, as the share of fund based income is very low.
### 3.11 Tables

**Table 3.1 Results of Breusch and Pagan’s LM test and Hausman test**

<table>
<thead>
<tr>
<th>Model</th>
<th>LM test (p value)</th>
<th>Hausman Test (p value)</th>
<th>Appropriate data analysis (Pooled OLS/Random effect Panel/Fixed effect Panel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abs Slack</td>
<td>0</td>
<td>0.0953</td>
<td>Random Effect panel</td>
</tr>
<tr>
<td>Un-Abs Slack</td>
<td>0</td>
<td>0.7332</td>
<td>Random Effect panel</td>
</tr>
<tr>
<td>SG</td>
<td>0.2788</td>
<td>NA</td>
<td>Pooled OLS regression</td>
</tr>
<tr>
<td>ROA</td>
<td>0</td>
<td>0.9486</td>
<td>Random Effect panel</td>
</tr>
<tr>
<td>ROS</td>
<td>0.0001</td>
<td>0.2679</td>
<td>Random Effect panel</td>
</tr>
<tr>
<td>ROE</td>
<td>0.0021</td>
<td>.3734/.0152</td>
<td>Random Effect panel/Fixed Effect Panel</td>
</tr>
</tbody>
</table>

**Table 3.2 Result of Cluster analysis**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prospector (1)</td>
</tr>
<tr>
<td>Marketing Exp/Sales</td>
<td>High</td>
</tr>
<tr>
<td>Operating Exp/Sales</td>
<td>High</td>
</tr>
<tr>
<td>Business/Employee</td>
<td>Low</td>
</tr>
</tbody>
</table>
Table 3.3 No of Public sector and Private sector banks in Defender/Prospector Group

<table>
<thead>
<tr>
<th>Clusters</th>
<th>2009-2014</th>
<th>Proportion</th>
<th>2006-08</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospectors</td>
<td>30</td>
<td>65%</td>
<td>21</td>
<td>46%</td>
</tr>
<tr>
<td>Public</td>
<td>12</td>
<td>46%</td>
<td>11</td>
<td>42%</td>
</tr>
<tr>
<td>Private</td>
<td>18</td>
<td>90%</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>Defenders</td>
<td>15</td>
<td>33%</td>
<td>21</td>
<td>46%</td>
</tr>
<tr>
<td>Public</td>
<td>13</td>
<td>50%</td>
<td>14</td>
<td>54%</td>
</tr>
<tr>
<td>Private</td>
<td>2</td>
<td>10%</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>Analyzers</td>
<td>1</td>
<td>2%</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Public</td>
<td>1</td>
<td>4%</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Private</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100%</td>
<td>46</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 3.4 Descriptive statistics and correlation coefficient

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ownership</td>
<td>0.43</td>
<td>0.50</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. SO</td>
<td>1.5</td>
<td>0.60</td>
<td>-0.18</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Uncertainty</td>
<td>0.5</td>
<td>0.50</td>
<td>0</td>
<td>-0.21&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. SG</td>
<td>27.4</td>
<td>17.73</td>
<td>0.24</td>
<td>0.12</td>
<td>-0.26&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. ROA</td>
<td>1.14</td>
<td>1.09</td>
<td>0.24&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-0.11</td>
<td>0.04</td>
<td>0.06</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. ROS</td>
<td>10.0</td>
<td>3.72</td>
<td>0.11</td>
<td>0.05</td>
<td>-0.11</td>
<td>0.13</td>
<td>0.13</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. ROE</td>
<td>16.2</td>
<td>5.61</td>
<td>-0.37&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.10</td>
<td>-0.12</td>
<td>0.03</td>
<td>-0.004</td>
<td>0.67&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slack</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. SGA</td>
<td>0.02</td>
<td>0.01</td>
<td>0.30&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-0.39&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-0.32&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.33&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-0.10</td>
<td>-0.11</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Quick</td>
<td>3.32</td>
<td>1.51</td>
<td>0.07</td>
<td>0.003</td>
<td>0.02</td>
<td>-0.15</td>
<td>-0.11</td>
<td>-0.09</td>
<td>-0.17</td>
<td>-0.10</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Size</td>
<td>9.28</td>
<td>1.15</td>
<td>-0.63&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.16</td>
<td>0.10</td>
<td>-0.2</td>
<td>-0.16</td>
<td>0.13</td>
<td>0.36&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-0.17</td>
<td>-0.31&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11. Age</td>
<td>4.10</td>
<td>0.72</td>
<td>-0.34&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-0.26&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.09</td>
<td>-0.47&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.04</td>
<td>0.05</td>
<td>0.25&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-0.18</td>
<td>0.31&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.05</td>
<td>1</td>
</tr>
</tbody>
</table>

<sup>b</sup>p < .05  
<sup>c</sup>p < .01
Table 3.5  GLS regression estimates of Slack

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Absorbed Slack</th>
<th>Unabsorbed Slack</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Strategic orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>-.00354&lt;sup&gt;d&lt;/sup&gt; (.00085)</td>
<td>-.00326&lt;sup&gt;d&lt;/sup&gt; (.00112)</td>
</tr>
<tr>
<td>Analyzer/reactor</td>
<td>-.00802&lt;sup&gt;d&lt;/sup&gt; (.00197)</td>
<td>-.01424&lt;sup&gt;d&lt;/sup&gt; (.00508)</td>
</tr>
<tr>
<td>Ownership</td>
<td>.0214 (.00191)</td>
<td>.00179 (.00206)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>-.00478&lt;sup&gt;d&lt;/sup&gt; (.00057)</td>
<td>-.00473&lt;sup&gt;d&lt;/sup&gt; (.00059)</td>
</tr>
<tr>
<td>Ownership x SO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>-.00080 (.00172)</td>
<td>.30817 (.54133)</td>
</tr>
<tr>
<td>Analyzer/reactor</td>
<td>.00667 (.00528)</td>
<td>.81991 (1.5217)</td>
</tr>
<tr>
<td>Uncertainty x SO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>.00172 (.00120)</td>
<td>.88164&lt;sup&gt;b&lt;/sup&gt; (.38942)</td>
</tr>
<tr>
<td>Analyzer/reactor</td>
<td>.00544&lt;sup&gt;a&lt;/sup&gt; (.00321)</td>
<td>.82398 (1.0325)</td>
</tr>
<tr>
<td>Age</td>
<td>-.00234&lt;sup&gt;b&lt;/sup&gt; (.00115)</td>
<td>-.00194&lt;sup&gt;a&lt;/sup&gt; (.00107)</td>
</tr>
<tr>
<td>Size</td>
<td>-.00133&lt;sup&gt;a&lt;/sup&gt; (.00071)</td>
<td>.00006 (.00074)</td>
</tr>
<tr>
<td>Constant</td>
<td>.04176&lt;sup&gt;d&lt;/sup&gt; (.00774)</td>
<td>.03038&lt;sup&gt;d&lt;/sup&gt; (.00950)</td>
</tr>
<tr>
<td>R square</td>
<td>0.0602</td>
<td>0.4123</td>
</tr>
<tr>
<td>Wald Chi-Square</td>
<td>8.61</td>
<td>100.55</td>
</tr>
<tr>
<td>Prob. &gt; Chi-Square</td>
<td>0.0135</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Standardized regression coefficients are reported, with standard errors in parentheses.

<sup>a</sup>p < .10  <sup>b</sup>p < .05  <sup>c</sup>p < .01  <sup>d</sup>p < .001
<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Sales Growth (OLS)</th>
<th>ROA (GLS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>strategic orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>5.5555a</td>
<td>4.23079</td>
</tr>
<tr>
<td></td>
<td>(3.34005)</td>
<td>(4.13798)</td>
</tr>
<tr>
<td>Analyzer/reactor</td>
<td>-20.30638b</td>
<td>-25.4786</td>
</tr>
<tr>
<td></td>
<td>(7.84564)</td>
<td>(11.7739)</td>
</tr>
<tr>
<td>Ownership</td>
<td>-1.01252</td>
<td>-3.29002</td>
</tr>
<tr>
<td></td>
<td>(4.43297)</td>
<td>(5.47554)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>-7.24258b</td>
<td>-6.65364b</td>
</tr>
<tr>
<td></td>
<td>(3.12659)</td>
<td>(3.25219)</td>
</tr>
<tr>
<td>Ownership x SO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>3.71841</td>
<td>9.28789</td>
</tr>
<tr>
<td></td>
<td>(7.19021)</td>
<td>(14.55496)</td>
</tr>
<tr>
<td>Analyzer/reactor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertainty x SO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>-5.69646</td>
<td>1.49855</td>
</tr>
<tr>
<td></td>
<td>(6.57541)</td>
<td>(17.16818)</td>
</tr>
<tr>
<td>Analyzer/reactor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-11.37041d</td>
<td>-14.71793d</td>
</tr>
<tr>
<td></td>
<td>(2.24621)</td>
<td>(2.62558)</td>
</tr>
<tr>
<td>Size</td>
<td>-2.68375d</td>
<td>-3.01253d</td>
</tr>
<tr>
<td></td>
<td>(1.40869)</td>
<td>(1.76746)</td>
</tr>
<tr>
<td>Constant</td>
<td>98.9504d</td>
<td>118.7307d</td>
</tr>
<tr>
<td></td>
<td>(15.6677)</td>
<td>(23.01495)</td>
</tr>
<tr>
<td>R square</td>
<td>0.2545</td>
<td>0.3820</td>
</tr>
<tr>
<td>Wald Chi-Square/F statistics</td>
<td>15.19</td>
<td>8.76</td>
</tr>
<tr>
<td>Prob. &gt; Chi-Square</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Standardized regression coefficients are reported, with standard errors in parentheses.

*a p < .10  
*b p < .05  
*c p < .01  
*d p < .001
### Table 3.7  GLS regression estimates of performance (ROE/ROS)

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>ROE</th>
<th>ROS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Strategic orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>.95393</td>
<td>1.79596</td>
</tr>
<tr>
<td></td>
<td>(1.11227)</td>
<td>(1.85192)</td>
</tr>
<tr>
<td></td>
<td>(2.57721)</td>
<td>(3.60638)</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>-2.01732</td>
<td>-4.11547</td>
</tr>
<tr>
<td></td>
<td>(.81151)</td>
<td>(1.06559)</td>
</tr>
<tr>
<td>Ownership</td>
<td>-.77548</td>
<td>Omitted</td>
</tr>
<tr>
<td></td>
<td>(1.86466)</td>
<td></td>
</tr>
<tr>
<td>Uncertainty x SO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>.72656</td>
<td>Omitted</td>
</tr>
<tr>
<td></td>
<td>(1.82136)</td>
<td></td>
</tr>
<tr>
<td>Analyzer/reactor</td>
<td>2.38166</td>
<td>Omitted</td>
</tr>
<tr>
<td></td>
<td>(4.77541)</td>
<td></td>
</tr>
<tr>
<td>Ownership x SO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defender</td>
<td>-4.83858</td>
<td>Omitted</td>
</tr>
<tr>
<td></td>
<td>(2.72307)</td>
<td></td>
</tr>
<tr>
<td>Analyzer/reactor</td>
<td>1.82421b</td>
<td>1.39129</td>
</tr>
<tr>
<td></td>
<td>(.87796)</td>
<td>(1.07339)</td>
</tr>
<tr>
<td>Age</td>
<td>1.68670d</td>
<td>2.0724</td>
</tr>
<tr>
<td></td>
<td>(.54753)</td>
<td>(.73817)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.1871</td>
<td>0.258</td>
</tr>
<tr>
<td>Wald Chi-Square</td>
<td>0.0006</td>
<td>0.0003</td>
</tr>
<tr>
<td>Prob. &gt; Chi-Square</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standardized regression coefficients are reported, with standard errors in parentheses.

- a p < .10  
- b p < .05  
- c p < .01  
- d p < .001
Fig 3.2: Plot of policy uncertainty index over 2006-14
Graphs representing interaction of variables

Fig 3.3 Moderating effect of uncertainty on SO-unabsorbed slack linkage

Fig 3.4 Moderating effect of uncertainty on SO-absorbed slack linkage

Fig 3.5 Moderating effect of ownership on SO-absorbed slack linkage

Fig 3.6 Moderating effect of ownership on SO-unabsorbed slack linkage

Fig 3.7 Moderating effect of ownership on SO-SG linkage

Fig 3.8 Moderating effect of uncertainty on SO-SG
Fig 3.9 Moderating effect of ownership on SO- ROS linkage

Fig 3.10 Moderating effect of uncertainty on SO- ROS linkage

Fig 3.11 Moderating effect of uncertainty on SO- ROE linkage
3.12 References


