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Understanding Information Technology Configuration in Business Diversification: A Political View

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Abstract: This research investigates how corporate politics affects Information Technology (IT) configuration decisions in organizational settings of business diversification. We propose that IT configuration in business diversification is a joint function of organizational political forces, modal choices of diversification strategies and related behavioral reactions of organizational actors. This research contributes to information systems literature in the theoretical deliberation of the organizational imperative in terms of IT configuration in the context of business diversification. Specifically, we advance a research model and a set of theory-driven propositions which can serve as a basis for the development of hypotheses to be empirically tested in future research.

Key words: Information technology configuration, business diversification, organizational politics

INTRODUCTION

Business diversification is usually viewed as an intrinsic component of strategic management (Rumelt, 1982), through which a firm or a business strives into new lines of products and/or services and the resulting new marketing and/or producing activities via internal business development or mergers/acquisitions (Datta *et al.*, 1991; Ramanujam and Varadarajan, 1989). Depending on the process of how diversifying firms construct corporate partnership, resource transaction and marketing and/or product diversities, business diversification entails a series of organizational transformations in administrative structure, resource configuration and managerial practices (Salter and Weinhold, 1979; Walter and Barney, 1990).

Meanwhile, by nature, Information Technology (IT) configuration describes and prescribes the interactive process of deployment, intervention and integration of IT resources into overall organizational properties and practices (Hu and Zhang, 2005). In the context of strategic management, IT configuration can be viewed as a structural process, during which featured characteristics and properties of IT infrastructure are produced and reproduced by important managerial choices and key organizational actions (Orlikowski, 1992). IT configuration manifests the way top management assesses and constructs IT resources to fit an organization's strategic requirements. As an important part of overall organizational resource allocation and

deployment, IT configuration decisions incorporate the whole procedure of IT analysis, design, implementation and operations (Hu *et al.*, 2006; Zhang *et al.*, 2010b).

In the early 1980s, Information Systems (IS) research focused on the interactions between IT and organizational performance (Ives and Learmonth, 1984; Markus and Robey, 1988; Zhang *et al.*, 2010a). Since then, research on dynamics between strategic management and IT configuration has become one of the major research streams of the IS discipline. Roughly, two research paradigms can be identified in this regard: (1) The technological imperative suggests IT as an independent technical entity wielding deterministic effects on strategic management by focusing on technical design and deployment of IT to facilitate strategic activities (Feeny and Wilcocks, 1998; Huber, 1981), or on changes in organizational practice and properties due to the intervention of IT (Fredrickson, 1986; Miller, 1987; Ranganathan and Sethi, 2002). (2) The organizational imperative assumes IT configuration as the dependent variable caused by the organization's information process needs and managers' choices about how to satisfy them (Markus and Robey, 1988).

Our literature review reveals that research on the interactions between IT configuration and strategic management has been dominantly focusing on (1) impacts of IT on a single industry, firm, or organizational practice and (2) the deterministic role of IT in strategic decision making. Although studies exist in theory building on the influence of social practices and human actions

in developing, appropriating and configuring IT infrastructure, theory-driven propositions for empirical explorations to be based on are still rare. In some work where the strategic choice model is assumed, the whole raft of IT configuration is instead conceptualized and examined through the lens of the relationship between organization and technology (Roberts and Grabowski, 1999), where the potential sense that human agents make in shaping IT configurations in strategic management is absent. Consistent with our findings, Orlikowski (1993) calls for research attention on the central role played by organizational actors, their institutional context and the processes they enact in adopting and using technology. Specifically, she emphasizes that research should highlight the centrality of key organizational players' deliberate, knowledgeable and reflective actions in shaping and appropriating the technology.

This research investigates how corporate politics affects IT configuration decisions in the process of business diversification. Two research questions are addressed: (1) How do political practices of business diversification influence the modes of IT resource configuration? (2) Are there any specifications of IT configurations in concert with different forms of business diversification? This research contributes to IS literature in a theoretical deliberation of the organizational imperative in terms of IT configuration in contexts of business diversification. Specifically, we advance a theory-driven research model and a set of propositions which can serve as a basis for the development of hypotheses to be empirically tested in future research.

ORGANIZATIONAL IMPERATIVE OF IT CONFIGURATION

The organizational imperative of IT configuration suggests that system characteristics and impacts of IT are determined by social contingencies such as organizational configurations, perceptions and cognitions of organizational actors as well as IT users and developers. It emphasizes on a full realization of the influence of human factors on IT configuration and impacts. As such, IT configuration in organizational settings is people- or organization-nuanced under indefinite managerial controls and choices of human actors over technological options and consequences of IT specifications. Greenwood and Hinings (1996) conceptualize organizations as heterogeneous entities comprised of functionally differentiated group pursuing goals and promoting interests. Through the lens of organizational imperative, IT configuration, as manifestation and alignment of organizational properties and practices, is no longer an external object, but rather a product of ongoing human

action, design and appropriation and socially constructed by human actors through the different meanings they attach to it and the various features they emphasize and use (Orlikowski, 1992).

A major theme of the organizational imperative is the political view of IT configuration, which focuses on effects of organizational politics on IT configuration and ultimate specifications of IT artifacts (Browne and Ramesh, 2002; Hu *et al.*, 2006; Jaspersen *et al.*, 2002; Markus, 1983). In organizations, conflicting objectives and interplaying human preferences and interests are a way of life (Markus and Robey, 1988; Moeller and Zhang, 2008). As a result, relationships and social systems of the organization are characterized by the distribution and utilization of political power (Walsh *et al.*, 1981). Thus, the political view of IT configuration treats organizations as self-interest driven systems, within which institutional properties, organizational tensions and power structures and cultural differences and preferences of stakeholders are developed and implicated (Hu *et al.*, 2006; Hu and Zhang, 2005). The political view realizes that the design and the deployment of IT come into play as the technological intervention into the interactions of organizational actors and organizational entities. As organizational actors are being equipped with diverse and even competing interests, such interventions will trigger political and interest reconstruction (Hu and Zhang, 2005; Markus and Robey, 1988). Their responses to the interventions will eventually influence the configuration of IT itself (Hu and Zhang, 2005; Zhang *et al.*, 2010a).

Specifically, IT has long been perceived as an instrumental complex of preferences, interests and power, facilitating human capacities of manipulating, controlling and imposing themselves on social systems (Morgan, 1997). IT can be constructed to be embedded with value systems of individual actors to establish and transform organizational practices and properties. As such, any configuration of IT may connote the introduction, modification and implementation of organizational structures, properties and practices, leading to changes in and challenges to current balance and construction of sectional interests as well as temporal power distribution (Gurbaxani and Kemerer, 1990; Hu and Zhang, 2005; Hu *et al.*, 2006; Markus, 1983). Laudon (1974) maintains that IT in organizations can be interpreted as a manageable technique, whose social existence, characteristics and outcomes are highly determined by specific political systems and relations that take use of it. As organizational actors pursue and claim sectional interests by manipulating the process of IT configurations, political tensions may arise.

In summary, the organizational imperative views IT configuration as an intervention means of individual actors into the organization, playing a significant role in shaping its underlying practices and properties, which in turn determine modes of its. In the sense that an organizational entity as a larger collectivity which can be atomized with individuals to meet its managerial purposes, the organizational imperative highlights the significance of human actions at both the collective and individual levels-their political tensions, interest conflicts and values and beliefs-on choices and future directions of IT configuration.

POLITICS IN BUSINESS DIVERSIFICATION

From the perspective of the resource-based view, it is the pursuit and utilization of a bundle of unique strategic resources that endorse a firm's competitive advantage (Rumelt, 1984). The strategic goals of business diversification are underpinned to search, acquire and re-allocate heterogeneously distributed organizational resources to gain sustainable competitive advantage. Resource heterogeneity and immobility across diversifying firms determine the political landscape and dynamics of business diversification.

Business diversification poses as a corporate strategy to gain and utilize economies of scale and scope and to broaden product lines and marketing opportunities for new business entries (Walter and Barney, 1990). Diversifying firms deal with a series of ongoing resource interdependencies among involved firm players, which, depending on the nature and span of diversifying businesses, will ultimately initiate a wide range of inter- and/or intra-organizational resources re-configuration and structural transformation of organizational properties. For instance, it is often the case that firms in the course of mergers and acquisitions have to deal with new debts or stocks (Palmer *et al.*, 1987). On the other hand, as a firm introduces different product lines or marketing tiers, business diversification via acquisitions and mergers involves strategy assessments of target firms in terms of their strengths and weaknesses and their value to the acquiring firms (Datta *et al.*, 1991).

As business diversification modifies and restructures the current layout and allocation of organizational resources, top management of the organization is required to reassess and renew the relationship systems with the environment, competitors and partners (Rumelt, 1984). For instance, it is typical that organizations in mergers and acquisitions are compelled to adjust dependency relationships (Pfeffer and Salancik, 1978). In addition, issues such as autonomy and corresponding tensions

stemming from diversifying businesses usually implicate resource re-allocation and political frictions (Datta and Grant, 1990; Ma *et al.*, 2006).

By and large, the political nuance of business diversification is connoted in different manners at different levels. At the corporate level, organizations are composed of various coalitions of interests, whose wide engagement in managerial dominance and power balance is anchored in the underlying organizational practices and structure (Perrow, 1970; Pfeffer, 1981; Pfeffer and Salancik, 1978). Moreover, the preliminary divergence and information asymmetry between top managers and principal owners may be intensified by the implementation of business diversification across firms and business units (Eisenhardt, 1989).

At the individual level, organizational actors may behave out of self-interest (Eisenhardt, 1989; Hu *et al.*, 2006). Interest differences among factions of diversifying firms are rather pronounced, suggesting the existence of interest conflicts and political tensions over the goals and means of business diversification (Amihud and Lev, 1981). Furthermore, motives for business diversification may come into play independent of organizational resources and incentives. From the executive's point of view, these motives may be signified in their risk reduction and increased compensation requests (Hoskisson and Hitt, 1990). The presence of interest conflicts and differentiated personal and group motives further complicates the situation of business diversification as a political process. Thus, we propose:

Proposition 1: Business diversification can be viewed as a political process, in which power restructure and interest conflicts occur.

POLITICS ON IT CONFIGURATION IN BUSINESS DIVERSIFICATION

In the context of business diversification, organizational structures and behaviors determine featured characteristics of IT infrastructure (Zhang *et al.*, 2010b). Through the lens of the political view, the power distribution of top management and locus of sectional interests and influential figures underlie mode variations of IT configuration. As resource control and allocation assumes a critical role in shaping political tensions and dynamics in organizations, the issue of IT configuration is translated into that of building a well-agreed-upon structure of computing resources vesting the authority of IT resource control and allocation within the political system (King, 1983; Hu *et al.*, 2006; Hu and Zhang, 2005).

Over past decades, IT infrastructure has been constructed in three primary manners: Centralized, decentralized and federated (Hu and Zhang, 2005; Sambamurthy and Zmud, 1999). Gurbaxani and Kemerer (1990) suggest that IT configuration modes vary in accordance with which of corporate IS, divisional IS and line management assume authority for key IT activities, especially where decisions are made and who has the authority to enact them (King, 1983). The distinction of IT centralization versus decentralization lies in the purpose and locus of decision-making on IT resources activities (Hu and Zhang, 2005; Sambamurthy and Zmud, 1999). Centralization suggests the decision-making point over the deployment of computing resources relies with a small group of corporate top managers; whereas with decentralization, managers of different business units or firms assume more power and duties (King, 1983). By the same token, the federated mode represents a highly adaptive IT resource governance mode in that it incorporates cooperative but autonomous IT components into a single architecture, where both corporate and business subunits assume distinct but interrelated roles in overall information infrastructure (Hu and Zhang, 2005; Litwin *et al.*, 1990; Sheth and Larson, 1990).

The political sense of business diversification is fully reflected in mode variations of IT configuration (Hu and Zhang, 2005; Markus, 1983; Tanriverdi, 2005). In the course of business diversification, it is not the featured characteristics of IT applications, but the political tensions that define the nature of IT configuration. The political interactions constitute and initiate a series of formal and informal means to reconstruct corporate properties and behaviors and redistribute political power and interests of unit coalitions in terms of organizational resources and unit influence and autonomy, which organizational actors of different business units and firms respond to and signify in forms and features of IT configuration (Hu and Zhang, 2005; Zhang *et al.*, 2010a).

IT configuration in related diversification: Diversifying businesses with consistent marketing and production technologies and procedures are deemed to be related (Rumelt, 1974). Business relatedness is defined as a sort of fit, whereby business units and/or firms establish synergy through commonalities and sharing of resources and technologies to achieve core competencies (Brown and Magill, 1998; Kanter, 1989). Firms in related diversification tend to be powered with a great deal of marketing and/or production consistencies in terms of logistics processes, targeted consumers and product distribution strategies (Sambamurthy and Zmud, 1999).

Empirical studies indicate that diversifying businesses with resource relatedness are more likely to build synergy without painful incorporation (Chatterjee, 1986; Hoskisson and Hitt, 1990; Ramanujam and Varadarajan, 1989; Walter and Barney, 1990). As an outgrowth, business units and/or firms pursuing related diversification may expect lower interest conflicts and higher goal congruence. Hill and Hoskisson (1987) suggest that the series of strategic consistencies and structural similarities of organizational resources promote efficiency and effectiveness of business cooperation and interplays between diversifying firms. Datta *et al.* (1991) suggest that potential interest conflicts in related diversification are assimilated and dissolved in economies of integration of operations and scope and transferable core skills. As resource, managerial and operational integrity come into play, political consensus in related diversification may be easily reached, leading to the overall corporate-wide protocols and standards. Thus, in a harmony picture with less political struggles and tensions, organizational actors may perceive it acceptable to centralize and specify a group of management agents to secure the authority on resources control and allocation (King, 1983).

In the context of IT configuration, the consistencies and commonalities of shared goals, marketing and production strategies and managerial practices within diversifying firms make it a necessity to develop and maintain an overall IT infrastructure to facilitate a comprehensive set of knowledge management capabilities (Hu and Zhang, 2005; Tanriverdi, 2005). In doing so, the organizational objectives of related diversification on managing computing resources are concerned with (1) the need to provide computing capability to all organizational units that legitimately require it and (2) the need to maintain organizational integrity in operations that are dependent on computing (King, 1983). Given the characteristics and strategic objectives of related diversification, requirements in computing resources authority are in high parallel with political protocols of organizational actors. Consequently, firms under related diversification tend to exhibit such attributes as complementarities and consistencies and commonalities of computing resources across IT infrastructures and applications (Sambamurthy and Zmud, 1999), which may lead to a centralized IT configuration. Thus, we propose:

Proposition 2: Due to political consensus and less interest conflicts, related diversifying firms are likely to implement the centralized mode of IT configuration.

IT configuration in unrelated diversification:

Corporations generally undertake unrelated diversification to meet the requirements of vertical economies through the acquisition and re-allocation of financial resources (Ramanujam and Varadarajan, 1989). In the business practice, because unrelated diversification usually cuts across a series of product divisions to deal with different customers and marketing strategies, diversifying firms are highly concerned with the issues of corporate-wide interest conflicts and political tensions associated with the process of the re-allocation of organizational resources across diverse business units (Berg, 1965).

Among unrelated diversifying firms, it is often the case that managers run the businesses differently from each other in terms of resource infrastructures, interaction routines and norms and managerial relations (Sambamurthy and Zmud, 1999). Hill and Hoskisson (1987) found that, in unrelated diversifying corporations, financial control authorities and organizing structures and practices are often decentralized to uphold a competitive environment between business units. According to Sambamurthy and Zmud (1999), this practice often generates an arena lacking of organizational harmony, trust, cooperation and goal congruence among managers. In addition, in unrelated acquisitions, diversifying businesses exhibit more pronounced autonomies than in related acquisitions (Datta and Grant, 1990; Ma *et al.*, 2006).

As unrelated diversifying corporations have to deal with a diversity of interest societies and power coalitions with distinct organizational tasks and objectives, organizational actors tend to operationalize their IT requirements through customizing and decentralizing IT governance authorities and controls to meet the responsiveness and autonomy of rising interest conflicts and power tensions (Ein-Dor and Segev, 1982; Hu and Zhang, 2005; Sambamurthy and Zmud, 1999). From an individualistic perspective, for business units' influence to be fully realized and sectional interests to be manifested corporate-wide, it is much appreciated for organizational actors of unrelated diversifying firms that the deployment mode of IT resources is able to accommodate sufficient degrees of autonomy of differing business units and firms and allows them to function at the unit level. As corporations decentralize their resource controls and authorities to managers of varying levels to endorse unit interests and discretion, the decentralized mode of IT configuration provides an opportunity for unrelated diversifying firms to acquire and deploy computing capacities and operations of their own to satisfy distinct interest requirements (Hu and Zhang, 2005; King, 1983). Therefore, unrelated diversifying firms

may very well adopt the decentralized mode of IT configuration. Thus, we propose:

Proposition 3: Due to various interest conflicts and power tensions among organizational actors, unrelated diversifying firms are likely to implement a decentralized mode of IT configuration.

Federated IT configuration: Relying upon individualistic drives and their interactive tensions, corporations function in a relationship system of distinct but symbiotic environmental forces. Even the most decentralized organizations have to maintain strong needs for central control over standards and operating procedures (Porter, 1985). Management literature has acknowledged special organizational tensions inherent in both strategies of related and unrelated diversifications (Handy, 1992). Although overall political consensus and goal congruence among managers of business units and/or firms arise as strategic outcomes of related diversification, organizational openness and sensitivity to contingencies of a wide variety of environmental forces are still under the general protocol of diversifying corporations. Likewise, while interest conflicts and power tensions invariably emerge within the unrelated diversification, the organizational requirements and practice for corporate-wide coordination, collaboration and cooperation are desirable (Ghoshal and Gratton, 2002; Hu and Zhang, 2005). The organizational paradox particularly associated with the introduction and implementation of business diversification leads to the search for a highly adaptive mode of IT configuration.

The federated mode of IT configuration attempts to balance organizational paradoxes of business diversification by controlling interest conflicts and power tensions in a well-organized way (Sage and Cuppan, 2001). While the decentralized mode of IT configuration makes data transparency and coordination unrealistic across diversifying units and/or firms, centralized impositions of IT resources are not beneficial to autonomous business units and/or firms (Hu and Zhang, 2005; King, 1983). The federated mode of IT configuration allows the authority for distinct interest needs of IT activities of diversifying units and meanwhile, maintains an acceptable level of corporate-wide coordination, collaboration and cooperation (Sambamurthy and Zmud, 1999).

Technically, the federated IT configuration embeds IT design principles of centralized IT infrastructure to distribute applications for satisfying organizational needs for integration and autonomy simultaneously. With the federated IT configuration, networked IT resources can be

made sharable and compatible across organizational functions (SOA, 2010). That the federated IT mode can simultaneously support integration and subunit empowerment within the complex environment of business diversification rests on its capacity of providing a method of defining and supporting orchestration of fine grained services into more coarse-grained business services (SOA, 2010).

Even though business diversification provides a variety of competitive advantages in terms of organizational coordination and functional autonomy of subunits at multiple levels, IT practitioners believe that the design and deployment of federated IT applications may hold the strategic promise of business diversification, because they provide a standards-based application infrastructure, which encourages the development of modular, reusable components to support end-to-end business processes or composite applications and solve IS interoperability problems with heterogeneous systems environment (CentraSite, 2010). CentraSite (2010) reports a series of business cases undergoing business diversification that, through the adoption of federated IT configuration, seamlessly integrated heterogeneous data and systems to satisfy the needs for IT resources transparency across different functional units. Koch (2006) suggests that the federated IT configuration will constitute corporate IT strategy in the age of organizational restructuring. Thus, we propose:

Proposition 4: Diversifying firms can implement the federated mode of IT configuration to satisfy the dual needs for coordination and autonomy.

Human behavior of IT configuration in business diversification: IT configuration attempts to build an information infrastructure to induce profound structural evolution of diversifying firms. During the process, although existing managerial philosophies and traditions of involved organizational entities are considered in

advance, such efforts entail a great deal of technical and political issues as inter- and intra-organizational policies are reconstructed and the interrelationships among organizational systems and subunits are re-formulated (Hu and Zhang, 2005; Ma *et al.*, 2006). Empowerment of subunits has to be adjusted to fit the need for organizational coordination and cohesion in order to integrate notions of specific IT configuration modes.

As the configuration and deployment of IT resources can induce and be embedded within a variety of interest and power reconstructions within organizational settings of business diversification, the political view lends a useful framework to explain and predict usage behaviors of organizational members over the process of IT configuration in diversifying organizations. Basically, the political view offers an analytic tool for IS researchers to investigate the relationship between the degree of resistance to or acceptance of a specific IT configuration mode and the degree of power and interest reconstruction. Markus (1983) suggests to view the resistance to system implementation as a variable intervening between the degree of change in the intra-organizational balance of power and the degree of power shift actually realized in the organization. Given the contextual characteristics of diversifying firms and IT configuration modes, we propose:

Proposition 5: The nature and strength of resistance to or acceptance of an IT configuration mode in diversifying firms is related to the extent of the loss/gain of political power and interests of diversifying business subunits and/or firms.

Drawing upon previous synthetic analysis of organizational politics and business diversification literature, the research model of a political view of IT configuration in business diversification is proposed in Fig. 1. It is asserted that political forces of interest conflict and power distribution in diversifying

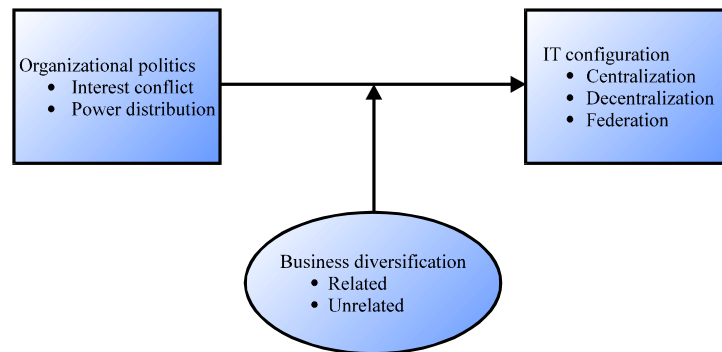


Fig. 1: A research model of a political view of IT configuration in business diversification

organizations will have influential effects on the deployment and configuration modes of IT resources. Specifically in the context of business diversification, the political implications on the modal choices of IT configuration are moderated by the characteristics of related and unrelated diversification.

CONCLUSION

This study outlined a research framework of political implications of IT configuration in business diversification. A research model and a set of theory-driven propositions were advanced to address political functions of strategic choices and social actions of organizational actors in the course of configuration of IT resources in diversifying corporations. It is our hope that this study will serve as an impetus and a basis for future research in which specific hypotheses, developed from the research model and propositions proposed herein, are empirically assessed.

REFERENCES

- Amihud, Y. and B. Lev, 1981. Risk reduction as a managerial motive for conglomerate mergers. *Bell. J. Econ.*, 12: 605-617.
- Berg, N., 1965. Strategic planning in conglomerate companies. *Harvard Bus. Rev.*, 43: 79-92.
- Brown, C.V. and S.L. Magill, 1998. Reconceptualizing the context-design issues for the information systems function. *Org. Sci.*, 9: 176-194.
- Browne, G.J. and V. Ramesh, 2002. Improving information requirements determination: A cognitive perspective. *Inform. Manage.*, 39: 625-645.
- CentraSite, 2010. Real-world SOA: Definition, implementation and use of SOA with CentraSite. http://www.webservices.org/content/download/112783/1639997/file/SOA_CentraSite_Whitepaper.pdf.
- Chatterjee, S., 1986. Types of synergy and economic value: The impact of acquisitions on merging and rival firms. *Strategic Manage. J.*, 7: 119-139.
- Datta, D.K. and J.H. Grant, 1990. Relationships between type of acquisition, the autonomy given to the acquired firm and acquisition success: An empirical analysis. *J. Manage.*, 16: 29-44.
- Datta, D.K., N. Rajagopalan and A. Rasheed, 1991. Diversification and performance: Critical review and future directions. *J. Manage. Stud.*, 28: 529-557.
- Ein-Dor, P. and A. Segev, 1982. Diversification and performance: Critical review and future directions. *MIS Q.*, 6: 55-68.
- Eisenhardt, K.M., 1989. Agency theory: An assessment and review. *Acad. Manage. Rev.*, 14: 57-74.
- Feeny, D. and L. Wilcocks, 1998. Core IS capabilities for exploiting information technology. *Sloan Manage. Rev.*, 39: 9-22.
- Fredrickson, J., 1986. The strategic decision process and organization structure. *Acad. Manage. Rev.*, 11: 280-297.
- Ghoshal, S. and L. Gratton, 2002. Integrating the enterprise. *MIT Sloan Manage. Rev.*, 44: 31-38.
- Greenwood, R. and C.R. Hinings, 1996. Understating radical organizational change: Bring together the old and the new institutionalism. *Acad. Manage. Rev.*, 21: 1022-1054.
- Gurbaxani, V. and C.F. Kemerer, 1990. An agency theory of the management of end-user computing. *Proceedings of the 11th International Conference on Information Systems*, May 6-10, Copenhagen, Denmark, pp: 279-289.
- Handy, C., 1992. Balancing corporate power: A new federalist paper. *Harvard Bus. Rev.*, 76: 59-72.
- Hill, C.W.L. and R.E. Hoskisson, 1987. Strategy and structure in the multiproduct firm. *Acad. Manage. Rev.*, 12: 331-341.
- Hoskisson, R.E. and M.A. Hitt, 1990. Antecedents and performance outcomes of diversification: A review and critique of theoretical perspectives. *J. Manage.*, 16: 461-509.
- Hu, T. and X. Zhang, 2005. An exploratory research on data management in the multidatabase environment. *Proceedings of 11th Americas Conference on Information Systems*, Aug. 11-14, Omaha, Nebraska, pp: 1312-1315.
- Hu, T., X. Zhang and B. Janz, 2006. Incorporating self-interest into information systems development: A research model. *Proceedings of 9th Southern Association for Information Systems Conference*, March 11-12, Jacksonville, Florida, pp: 164-170.
- Huber, G.P., 1981. The nature of organizational decision-making and the design of decision support systems. *MIS Q.*, 5: 1-10.
- Ives, B. and G. Learmonth, 1984. The information system as a competitive weapon. *Commun. ACM*, 29: 1193-1201.
- Jasperson, J., T.A. Carte, C.S. Saunder, B.S. Butler, H.J. Croes and W. Zheng, 2002. Power and information technology research: A metatriangulation review. *MIS Q.*, 26: 397-459.
- Kanter, R.M., 1989. *When Giants Learn to Dance*. Simon and Schuster, New York.
- King, J.L., 1983. Centralized versus decentralized computing: Organizational considerations and management options. *ACM Computing Surveys*, 16: 319-349.

- Koch, C., 2006. The postmodern manifesto. *CIO Magazine*, 19: 14-14.
- Laudon, K., 1974. *Computers and Bureaucratic Reform*. John Wiley and Sons, New York.
- Litwin, W., L. Mark and N. Roussopoulos, 1990. Interoperability of multiple autonomous databases. *ACM Computing Survey*, 22: 267-293.
- Markus, L. and D. Robey, 1988. Information technology and organizational change: Causal structure in theory and research. *Manage. Sci.*, 34: 583-598.
- Markus, M.L., 1983. Power, politics and MIS implementation. *Commun. ACM*, 26: 430-444.
- Miller, D., 1987. Strategy making and structure: Analysis and implications of performance. *Acad. Manage. J.*, 30: 7-32.
- Moeller, G. and X. Zhang, 2008. Understanding antecedents of interpersonal conflict in information systems development: A critical analysis. *Proceedings of 39th Decision Science Institute Annual Meeting*, Nov. 22-25, Baltimore, Maryland, pp: 1661-1666.
- Morgan, G., 1997. Interests, Conflict and Power: Organizations as Political Systems. In: *Images of Organizations*, Morgan, (Eds.). Sage Publication, London, pp: 153-214.
- Orlikowski, W.J., 1992. The duality of technology: Rethinking the concept of technology in organizations. *Org. Sci.*, 3: 398-427.
- Orlikowski, W.J., 1993. CASE tools as organizational change: Investigating incremental and radical changes in systems development. *MIS Q.*, 17: 309-341.
- Palmer, D., R. Friedland, P.D. Jennings and M.E. Powers, 1987. The economics and politics of structure: The multidivisional form and the large U. S. corporation. *Administrative Sci. Q.*, 32: 25-48.
- Perrow, C., 1970. Departmental Power and Perspectives in Industrial Firms. In: *Power in Organizations*, Zald, M.N. (Ed.). Vanderbilt University Press, Nashville, Tennessee, pp: 59-89.
- Pfeffer, J. and G.R. Salancik, 1978. *The External Control of Organizations* Harper and Row, New York.
- Pfeffer, J., 1981. *Power in Organizations*. Pitman Publication, Marshfield, Massachusetts.
- Porter, M.E., 1985. *Competitive Advantage: Creating and Sustaining Superior Performance*. The Free Press, New York.
- Ramanujam, V. and P. Varadarajan, 1989. Research on corporate diversification: A synthesis. *Strategic Manage. J.*, 10: 523-551.
- Ranganathan, C. and V. Sethi, 2002. Rationality in strategic information technology decisions: The impact of shared domain knowledge and IT unit structure. *Decision Sci.*, 33: 59-86.
- Roberts, K.H. and M. Grabowski, 1999. Organizations, Technology and Structuring. In: *Managing Organizations: Current Issues*, Clegg, S.R., C. Hardy and W. Nord (Eds.). Sage Publication, Thousand Oaks, California, pp: 409-423.
- Rumelt, R.P., 1974. *Strategy, Structure and Economic Performance*. Harvard University Press, Cambridge, Massachusetts.
- Rumelt, R.P., 1982. Diversification strategy and profitability. *Strategic Manage. J.*, 3: 359-369.
- Rumelt, R.P., 1984. Towards a Strategic Theory of the Firm. In: *Competitive Strategic Management*, Lamb, B. (Eds.). Prentice Hall, Englewood Cliffs, New Jersey, pp: 556-570.
- SOA, 2010. Wikipedia. http://en.wikipedia.org/wiki/Service-oriented_architecture
- Sage, A.P. and C.D. Cuppan, 2001. On the systems engineering and management of systems of systems and federations of systems. *Inform. Knowledge Syst. Manage.*, 2: 325-345.
- Salter, M.S. and W.A. Weinhold, 1979. *Diversification Through Acquisition: Strategies for Creating Economic Value*. The Free Press, New York.
- Sanbanurthy, V. and R.W. Zmud, 1999. Arrangements for information technology governance: A theory of multiple contingencies. *MIS Q.*, 23: 261-290.
- Sheth, A. and J. Larson, 1990. Federated database systems for managing distributed, heterogeneous and autonomous databases. *ACM Computing Surveys*, 22: 183-236.
- Tanriverdi, H., 2005. Information technology relatedness, knowledge management capability and performance of multibusiness firms. *MIS Q.*, 29: 311-334.
- Walsh, K., B. Hinings, R. Greenwood and S. Ranson, 1981. Power and advantage in organizations. *Org. Studies*, 2: 131-152.
- Walter, G.A. and J.B. Barney, 1990. Research notes and communications management objectives in mergers and acquisitions. *Strategic Manage. J.*, 11: 79-86.
- Zhang, X., T. Hu, H. Dai and X. Li, 2010a. Software development methodologies, trends and implications: A testing centric view. *Inform. Technol. J.*, 9: 1747-1753.
- Zhang, X., D.W. Nickels and T.F. Stafford, 2010b. Understanding the organizational impact of radio frequency identification technology: A holistic view. *Pacific Asia J. Assoc. Inform. Syst.*, 2: 1-17.