

IT Committee Design and IT Performance

Rui Huang

Binghamton University, P. O. Box 6000, Binghamton, NY, U.S.A.

Keywords: IT Governance, IT Committee Design, IT Performance.

Abstract: In order to improve IT performance and ultimately business-IT alignment, organizations have given increased attentions to IT committees as a governance structure. Looking through the lens of network embeddedness and role theories, this study focuses on the design issues related to IT committees and argues that there is an optimal point in terms of an IT committee's size and its composition. Empirical validation of the research arguments using secondary data will be the next step. If empirical support can be received, this study will generate both theoretical and practical implications to the IT governance literature.

1 INTRODUCTION

In order to improve IT performance and ultimately business-IT alignment, organizations have given increased attentions to IT committees as a governance structure. At least one IT committee is used in many organizations to create a forum for identifying IT needs, prioritizing IT projects, establishing IT policies and procedures, making IT decisions, and coordinating IT-related activities. Looking from a network embeddedness perspective, IT committees act as a social form of governance and engender both structural and relational embeddedness (Granovetter, 1992). By structurally positioning relevant managers in a network and cultivating relational ties among them, IT committees bridge information gaps and shape collective understandings and behaviours.

Nevertheless, given the social positions each member holds within and outside the IT committee, managers from various managerial levels are likely to focus on different aspects of IT (Biddle, 1986). For example, enterprise-level managers tend to have a strategic orientation in terms of IT-related issues, while operational-level managers are geared toward operative dimensions. A balance between strategic and operational focus is desirable for optimal IT and business performance (Sorenson and Sorensen, 2001), which requires a balanced design of IT committees. Furthermore, the size of the committee also matters as too small a committee may limit social interactions and information exchange across divergent domains of knowledge/practice, whereas

too large a committee may challenge group identity and consequently relational development within the committee (Moran, 2005).

Hence, this article intends to discuss issues related to the design of IT committees. The position of the article is that *there should be an optimal point in terms of an IT committee's size and its composition*. With the ongoing theoretical and empirical exploration, the study will identify the most favourable number of members to be included on a committee, and the best mix of enterprise-level and operational-level managers as committee members.

The article proceeds as follows. Background literature and theories are discussed prior to the presentation of research propositions. Ideas for empirical testing are then proposed, followed by a conclusion highlighting the key points of the article.

2 IT COMMITTEES AS A GOVERNANCE MECHANISM

As organizations continue to invest in information technologies (IT), they constantly face the challenge of aligning business and IT, i.e., applying IT in harmony with the overall business objectives and strategies (Luftman and Brier, 1999). Factors contributing to this challenge are related to knowledge exchange between business and IT leaders, lack of awareness of corporate and industry strategies, bounded rationality and locus of control, and dynamic organizational and business

environment (Chan and Reich, 2007). The multi-dimensional nature of business-IT alignment further amplifies the challenge, given the need for aligning strategically/intellectually, structurally, socially and culturally (Reich and Benbasat, 1996). Many practitioners and researchers have tried to identify possible solutions to enhance the business-IT alignment, including but not limited to strategic fit between internal and external strategies and functional integration between organizational and IT infrastructure and processes (Henderson and Venkatraman, 1991), communication/relationships between IT and business executives and connections between IT and business planning (Reich and Benbasat, 2000), locus of control for systems approval (Brown and Magill, 1994), top management support (Lederer and Mendelow, 1989), and simultaneous development and implementation of IT and business strategies (Smaczny, 2001).

Among the various solutions proposed, increased attentions are given to IT governance, which uses a mix of structures (e.g., roles and responsibilities, steering committees), processes (e.g., service level agreements), and relational mechanisms (e.g., active participation and collaboration between principal stakeholders) (*cf.* De Haes and Van Grembergen 2005) to enable social interactions between different stakeholders for achieving business-IT alignment (Reich and Benbasat 2000). As a governance structure, IT steering committees provide a formal forum for regular discussion of IT-related issues and function as a specific sphere for IT decision-making.

From a network embeddedness perspective, IT committees facilitate a social form of IT governance as they enable both structural and relational embeddedness. Rooted in Granovetter's original conceptualization of embeddedness, IT committees serve as a social system allowing for coordination and interactions between stakeholders who are not bounded by contractual relationships (Granovetter, 1992). "Embeddedness refers to the fact that economic action and outcomes ... are affected by actors' dyadic (pairwise) relations and by the structure of the overall network of relations" (Granovetter, 1992: 33). Structurally, IT committees offer a network architecture emphasizing information exchange about the actions of committee members through their structural positions in the network (Jones, Hesterly and Borgatti, 1997). Via indirect connections of a dyad's mutual contacts, behaviours of one member can be easily discussed and spread over the entire network, which allows values, norms, and common

understandings to quickly move among stakeholders and consequently shapes their behaviours. Relationally, IT committees improve the quality and depth of relational ties within the network by promoting personal relations among committee members (Moran, 2005). These relations cultivate trust and information sharing, encourage stakeholders to consider one another's needs and goals, and engender robust individual and collection actions reinforcing norms and shared beliefs. As a result, IT committees institute structural embeddedness through the fashioning of norms and practices at group level, as well as relational embeddedness through the building of trust at the dyadic level (Rowley, Behrens and Krackhardt, 2000).

2.1 Committee Composition and Focus

Existing research has suggested that designs of IT committees, in terms of their specifications of intent, activities to be engaged in, and participants in these activities, are likely to influence the functions of these committees. For example, committees that clarify intent early on tend to work better (Reich & Benbasat, 2000), and compositions of enterprise-level and/or operational-level managers tend to lead to different IT focus and consequently IT performance (Weill and Ross, 2005).

The theoretical lens of network embeddedness puts focus on committee composition, as structural and relational embeddedness are likely to vary with the number of members involved in a committee and their engaged roles. First, although managers on a committee are motivated by their vested interests (Jensen and Meckling, 1976), they also share the intention align individual goals with organizational objectives through collective behaviours (Davis, Shoorman and Donaldson, 1997). Thus, they are organizationally centred and place high value on cooperation, whereas IT committees provide a channel for them to negotiate and make decisions they perceive are in the best interest of their organizations. The stewardship actions are best facilitated when the governance structure give them high authority and discretion (Donaldson and Davis, 1991).

Yet at the same time, committee members engage in social positions and their behaviours are guided by expectations held both by the individual and by other people (Biddle, 1986). Therefore, although acting in the best interest of their organizations, committee members still behave in ways that are different and predictable by their

respective social identities. For example, top/enterprise-level managers such as board of directors, chief executives and managing director manage goals and policies for an enterprise, whereas middle/operational-level managers are responsible to the top management for the functioning of their department and they devote more time to organizational and directional functions. In terms of their preference with IT when contributing to the discussion on IT committees, it is not surprising then that enterprise-level managers are oriented toward strategic aspects of IT (e.g., future IT directions, and IT bringing transformative effects to the organization) while operational-level managers are geared toward operative aspects of IT (e.g., current application and implementation of IT and IT emphasizing business automation and information transfer). Taken together, the following propositions are suggested.

P1a. IT committees consisting of more enterprise-level managers are likely to have a strategic orientation of IT.

P1b. IT committees consisting of more operational-level managers are likely to have an operational orientation of IT.

Improved IT performance will be unlikely if a committee is solely oriented toward either strategies or operations. In order for IT to truly provide support to business functions and achieve business objectives, organizations need to emphasize on both incremental improvement of existing IT routines to enhance operational efficiency and discovery of potentially useful resources and technologies. With an operative focus, organizations develop experiences with IT to exhibit distinctive capabilities, whereas with a strategic focus, organizations optimize operational routines by staying alert to changes in the environment (Sorenson and Sorensen, 2001). Hence, ideal IT performance arises from a balance of strategic and operational orientations.

P2. A balance between strategic and operational orientation of IT will lead to improved IT performance.

2.2 Committee Size and IT Performance

Because of the fact that managers social positions lead to variations in their IT orientations, IT governance researchers have advocated the benefits of a committee comprising both enterprise-level and operational-level managers as it ensures the alignment of enterprise-level and operational-level

IT-related activities over time, although on the other hand, such a committee may also generate challenges for members to reach consensus and make decisions as stakeholders hold divergent cognitive frames creating barriers for knowledge exchange and information sharing (Huang, Zmud and Price, 2010). When a single IT committee consists of members performing different managerial/social roles, it is also desirable that a balanced design is achieved in terms of the committee size.

A committee that is too small, such as one with only two members, will hinder its effective facilitation of structural and relational embeddedness. Specifically, assuming both members are enterprise-level (or operational-level) managers, given that they are from the same managerial level, these two members tend to share redundant ties in the network and have access to redundant sources of information and resources (Burt, 1992). The resulted weaker structural embeddedness may lead to bias of the committee, compromising its goal of achieving business-IT alignment. On the other hand, if one member is an enterprise-level manager and the other represents the operational level, structural embeddedness may be strengthened due to the absence of ties and sparse social networks within the committee, which stimulates the brokerage and dissemination of information (Granovetter, 1973). Nevertheless, the lack of tie strength also hampers the development of relational embeddedness within the committee.

Similar defects may be expected from a committee that is too large, such as one with twenty members. Particularly, although larger committees enable structural holes beneficial for exploiting unconstrained network positions, they also amount to uncertainties within the network that challenge social relations and group identity (Coleman, 1990). Therefore, relational embeddedness, if not structural embeddedness, will suffer from the large size of the committee. In summary, neither a small nor a large committee is a good option, and an optimal size of the IT committee ought to be identified.

P3. There will be a curvilinear relationship between committee size and IT performance.

3 RESEARCH DESIGN

Secondary data will be used to empirically validate the positions proposed in this article. IT committee and financial performance data from 100 plus public

firms have been collected for the year of 2009. Annual reports and letters to shareholders from these companies will be coded to retrieve the signals indicating IT orientations (e.g., strategic and operational) of each firm. There are two focal independent variables of this study: the number of members on each company's IT committee (capturing committee size), and whether the member is an enterprise-level or operational-level manager (as indicated by their job titles). The dependent variables include (1) financial performance, as reflected by a series of financial measures such as ROA, ROI, and earnings per share, etc and (2) the number and nature of IT signals transmitting either a strategic or operational focus.

The study is currently at the data collection stage. Once all the annual reports and letters to shareholders are coded, various steps of multiple regressions will be run to test the research propositions. With robust empirical analysis, it is also expected that an optimal size and composition of the committee will be identified.

4 CONCLUSIONS

With improved knowledge about committees as a governance structure, organizations are giving IT committees an increasingly important role in achieving business-IT alignment. However, IT committees should not be setup using a random fashion. Rather, the design of these committee matters for the performance of IT. Using network embeddedness and role theories, this article proposes a position that there is an optimal design in terms of an IT committee's size and its composition. Specifically, a committee with too small or too large a size tends to hamper IT performance. Also, because of the diverse focus of enterprise-level and operational-level managers, a balanced mix of both will improve the effectiveness a committee.

Secondary IT committee and financial data, as well as coding of annual reports and letters to shareholders will be used to empirically test the propositions of this article. If supported, these propositions will generate insights to the roles of IT committee design in achieving superior IT performance and ultimately business-IT alignment.

REFERENCES

Biddle, B. J. (1986). Recent Development in Role Theory. *Annual Review of Sociology*, 12, 67-92.

- Brown, C. V. and Magill, S. L. (1994). Alignment of the IS Functions with the Enterprise: Toward a Model of Antecedents. *MIS Quarterly*, 18(4), 371-403.
- Burt, R. S. (1992). *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.
- Chan, Y. E. and Reich, B. H. (2007). IT Alignment: What Have We Learned? *Journal of Information Technology*, 22, 297-315.
- Coleman, J. S. (1990). *Foundations of Social Theory*. Cambridge, MA: Belknap Press of Harvard University Press.
- Davis, J. H., Shoorman, F. D. and Donaldson, L. (1997). Toward a Stewardship Theory of Management. *Academy of Management Review*, 22(1), 20-47.
- De Haes, S. and Van Grembergen, W. (2005). IT Governance Structures, Processes and Relational Mechanisms: Achieving IT/Business Alignment in a Major Belgian Financial Group. *Proceedings of the 38th Annual Hawaii International Conference on System Sciences*, Track 8, pp.237.
- Donaldson, L. and Davis, J. H. (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Australian Journal of Management*, 16(1), 49-64.
- Granovetter, M. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 6, 1360-1380.
- Granovetter, M. (1992). Problems of Explanation in Economic Sociology. In Nohria, N. and Eccles, R.G. (Eds.), *Networks and Organizations: Structure, Form, and Action* (pp. 25-56). Boston: Harvard Business School Press.
- Henderson, J. C. and Venkatraman, N. (1991). Understanding Strategic Alignment. *Business Quarterly*, 55(3), 72-79.
- Huang, R., Zmud, R. W. and Price, R. L. (2010). Influencing the Effectiveness of IT Governance Practices through Steering Committees and Communication Policies. *European Journal of Information Systems*, 19, 288-302.
- Jensen, M. C. and Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305-360.
- Jones, C., Hesterly, W. S. and Borgatti, S. P. (1997). A General Theory of Network Governance: Exchange Conditions and Social Mechanisms. *Academy of Management Review*, 22(4), 911-945.
- Lederer, A. L. and Mendelow, A. L. (1989). Coordination of Information Systems Plans with Business Plans. *Journal of Management Information Systems*, 6(2), 5-19.
- Luftman, J. and Brier, T. (1999). Achieving and Sustaining Business-IT Alignment. *California Management Review*, 42(1), 109-122.
- Moran, P. (2005). Structural vs. Relational Embeddedness: Social Capital and Managerial Performance. *Strategic Management Journal*, 26, 1129-1151.
- Reich, B. H. and Benbasat, I. (1996). Measuring the Linkage between Business and Information

- Technology Objectives. *MIS Quarterly* 20(1), 55–81.
- Reich, B. H. and Benbasat, I. (2000). Factors that Influence the Social Dimension of Alignment between Business and Information Technology Objectives. *MIS Quarterly* 24(1), 81–113.
- Rowley, T. Behrens, D. and Krackhardt, D. (2000). Redundant Governance Structures: An Analysis of Structural and Relational Embeddedness in the Steel and Semiconductor Industries. *Strategic Management Journal*, 21(3), 369 - 386.
- Smaczny, T. (2001). Is an Alignment between Business and Information Technology the Appropriate Paradigm to Manage IT in Today's Organizations? *Management Decision*, 39(10), 797-802.
- Sorenson, O. and Sorensen, J. B. (2001). Finding the Right Mix: Franchising, Organizational Learning, and Chain Performance. *Strategic Management Journal*, 22(6-7), 713-724.
- Weill, P. and Ross, J. W. (2005). A Matrixed Approach to Designing IT Governance. *Sloan Management Review*, 46(2), 26–34.

