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Business Network Governance Structure and IT Capabilities

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Abstract

This paper investigates the IT capability and its impact on the governance of business networks by offering a comprehensive IT capability concept especially for monitoring, controlling and coordination purposes. This concept focuses on IT as a monitoring and controlling tool. As business network, the research focus on franchising networks.

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1. Introduction

The question of “How IT affects the business life?” has been a major question in business life since IT was started to be used in daily operations. However this question is too wide to answer since IT impact on business life has various aspects and each aspect is big enough to be investigated separately.

Monitoring, controlling and coordination are important governance issues in business networks. After the setting up the network, coordination in the network, control and monitoring in required cases and processes has always been a problematic issue. Today’s business life benefits from the opportunities offered by information technology. Moreover, firms are not only benefit from IT, they are dependent on it. Without IT a governance structure cannot be imagined.

The question of how IT affects organizational design (Holland and Lockett 1997) and distribution of decision rights has been one of the major interest areas of researchers (Nault 1998). IT is potentially related to organizational transition. Because: first, a huge proportion of firms’ budget is spent for IT investments. An average company’s IT investment is claimed to be greater than 4.2 % of annual revenues (Weil and Ross 2004). Second, developments in IT

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are novel and exogenous; and pervasive. Third, a direct link exists between the diffusion of IT and changes in the economics of organizations (Hitt and Brynjolfsson 1997). Also, strategic threats and opportunities are created through the rapid introduction of new technologies.

2. Literature Review

2.1. *Information Technology and Governance*

Bill Gates (1999) states that “Information Technology and business are becoming inextricably interwoven. I don’t think anybody can talk meaningfully about one without talking about the other”. KPMG in 2004 found that 77.4% of respondent companies were vitally dependent on IT for their continuing operation (KPMG, 2004). In an “information-based organization” (Drucker 1988) controlling and monitoring are supposed to be better compare to an old style organization as a result of IT-enhanced tools (Nault 1997). Moreover, since IT innovations have radically reduced the cost and time of communication and information processing (Malone et al. 1987) “the design of information technology is the design of organizations” (Lucas and Baroudi 1994).

IT is a comprehensive term used for combination of hardware, software, internet, telecommunications, electronics and resulting technologies (Ruiz-Mercader et al. 2006). Grover and Malhotra (1999) define IT as a technology used to acquire, process and transmit information for more effective decision making. IT can be perceived as an enabler of knowledge management (Lee and Choi 2003). In this study, we accept the role of IT as capacity expander of knowledge creation through speed, memory extension and communication facilities of IT (Baroni & Araújo 2001).

Economic models consider employees as “rational cheaters” and they shirk when the perceived marginal benefit exceeds the marginal cost (Nagin et al. 2002). Without control it is difficult to coordinate and check the appropriateness of actions, carry out and revise strategies and guarantee the uniformity of products, services and prices among the franchised chains. Monitoring and controlling is an important issue especially in networks. For example, outlet monitoring issues have higher importance than capital scarcity in the explanation of why firms franchise (Hoover, Ketchen and Combs 2003).

Fundamental changes in governance through better IT capability enables better monitoring and control, since IT can reduce coordination costs (Clemons and Row 1992). In this study, we examine the current IT capability concepts and offer a comprehensive one focuses on monitoring and controlling especially in business networks.

2.2. *Governance of a Business Networks*

Governance in general is defined as “an effort to craft order, thereby to mitigate conflict and realize mutual gains” (Williamson 2000). The basic assumption in this regard is formulated as: Complex form of organization is appropriate for complex transactions and simple form of organization is suitable for simple transactions (Richman und Macher 2006). Simple governance form in complex transactions would be risky and leads contractual breakdown, while complex governance form in simple transactions would create unnecessary costs and result in no gain. Weill and Ross (2004) state that effective governance focus on three basic questions: What decisions must be taken? Who should make these decisions? How will these decisions implemented and monitored?

In this study we will proceed more specific and as business networks the focus will be on franchising networks. Despite successful examples, franchise networks encounter serious governance problems. Franchise network might be complex. In addition to franchisor and individual franchisees, network can be composed of single-unit franchisees, multi-unit franchisees with their outlet managers, master franchisees with their sub-franchisees and the managers of company-owned outlets. Some networks might adopt a dual distribution strategy which is made up both franchised and company owned outlets.

Distribution of decision rights (DDR), monitoring and control are usually the core of the governance issue. How much rights should be distributed and how much control should be imposed are the vital questions. In addition to this, ownership is another important issue in franchising governance research. Ownership of a chain might be a discussion matter and franchisors may decide to own some chains. Distribution of decision rights and distribution of ownership rights have strong ties with monitoring and control, and as a consequence in today’s world monitoring and control is tightly connected to IT. Our research will be structured through the path just mentioned above: Distribution of decision rights, distribution of ownership rights (DOR), and IT. Our model will investigate governance under two headings: (1) DDR and (2) DOR.

2.3. *Distribution of Decision Rights*

Malone et al. (1987) claim in their classic article that high asset specificity and complex product descriptions increase the need for hierarchies. However, intensive use of IT shifts the governance from hierarchies towards markets.

Allocation of decision rights has always been a big challenge in all types of cooperation attempts. The question of "who should have which decision rights" is the basic question of the DDR research. Allocation depends on factors like the type of business, assets (tangible-intangible), location, staff, etc. Gurbaxani and Whang (1991) argue that "decision rights should be located where the sum of decision information costs and agency costs are minimized".

Control is necessary for the quality and future of the brand. However, organizational operations are often myopic, and desire for control might and often results in dysfunctional outcomes (Williamson 1981). Franchising offers some level of autonomy which fosters outlet owners' entrepreneurial satisfaction and their system-wide adaptation. Even though, autonomy given might open door to increase the costs of agency problems in franchisor-franchisee relationship, franchisees are considered as entrepreneurs and their desire for autonomy shouldn't be ignored for a healthy network organization. As DDR and control are interwoven, too narrow control might disappoint the entrepreneurial motives of the franchisees (Cochet, Dormann and Ehrmann 2008, Kidwell, Nygaard and Silkoset 2007). Cochet, Dormann and Ehrmann (2008) claim that beside outlet owners' satisfaction, franchisee autonomy increase costs from agency problems. Control is a sensitive and one of the core issues of franchising agreements (Brookes and Roper 2011) and requires delicate balance of rules, communication and monitoring.

In this research, DDR will be analyzed through the following variables: (D.1) Procurement decision, (D.2) product decision, (D.3) accounting system decision, (D.4) price decision, (D.5) promotion and advertising decision, (D.6) employees' training decision, (D.7) recruiting decision, (D.8) investment and financial decision, (D.9) incentives and wages decision (Windsperger 2003).

2.4. *Distribution of Ownership Rights*

Ownership conventionally contains two rights: control right and the rights to get the residual earnings (Hansmann 2013). In usual firms these two rights are usually hold by the same hand. However, due to the hybrid form of franchising, ownership and control aren't given to the same body in general. Depending on the design of the network, two rights are distributed between franchisor and franchisee. But, this distribution doesn't have a fix proportion. Franchisor fully owns the chain and collects all the decision rights at the extreme level or chain is owned by franchisee and some decision rights are distributed to her.

In the literature we can find negative correlation between ownership of the chain and chain's distance to the headquarters. Franchisors have tendency to own headquarters close outlets and franchise the ones which are far from the headquarters (Lafontaine 1992). Monitoring has a great importance especially in different geographical and cultural environments. In Canada, large geographic distances between population centers claimed to have a strong impact in determining ownership patterns (Carney and Gedajlovic 1991). Lafontaine and Shaw (2005) also claim that franchisors with high value brand name have high rates of company-ownership. The ownership motive is to protect their brands

The research aims to test the IT impact on the ownership of the chains. It is planned to analyze how IT capabilities affect the chain ownership, and shift toward to the middle is valid for franchise networks with high IT capability and intensive use of it. Also, it is planned to examine which IT variables have more/less impact on the franchise network governance.

3. **Theoretical Frameworks**

Transaction Cost Theory, Resource Based View, Agency Theory, Resource Scarcity Theory are the theories widely used in franchising research. However, Transaction Costs and Resource-Based explanations are mostly used two theories in governance and IT issues (Kim and Mahoney 2006). We have decided to combine these two perspectives in our study.

3.1. *Transaction Cost Theory*

TCE has been one of the standard frameworks for analyzing the choice of organizational governance (Leiblein 2003). Williamson (1985) bases the TCE on two basic behavioral assumptions; bounded rationality and opportunistic human behavior. Moreover, the relative impact of two assumptions is determined by the degree of uncertainty which surrounds the transaction environment, occurrence frequency of the transaction, transaction-specific assets required in order to fulfill the contract obligations. Bounded rationality is defined as incapacity to forecast all future contingencies ex-ante (Williamson 1985). This assumption converts all comprehensive contracts into ineffective and incomplete (Williamson 1988). Thus, in order to prevent undesirable consequences occurred as a result of gaps, errors, and omissions in the original contract, parties often need to take some precautions like monitoring and control processes.

Due to high applicability and success in marketing and governance issues, TCE will be used as one of the theoretical frameworks in this research in the construction of the model to examine IT impact on the governance of franchise networks. The TCE variables used to investigate IT impact on governance are: (T.1) Environmental uncertainty, (T.2) Behavioral uncertainty, (T.3) Transaction specific investments (asset specificity)

3.2. *Resource Based View*

Another widely accepted dominant theory upon which arguments have been grounded in strategic management is Resource Based View (RBV) (Newbert 2007). A strong argument on RBV states that "it is the only theory of corporate scope which is capable of explaining the range of diversification, in all its richness, from related constrained to the conglomerate form" (Peteraf 1993).

It is claimed that "the resource-based view of the firm is a useful tool for researchers to understand if, and how, particular parts of the firm affect the firm at large" (Wade and Hulland 2004). RBV theory is especially used in IT capability research and firm performance (Bharadwaj 2000). Wade and Hulland (2004) claim that RBV provide rare and valuable benefits to IS research by "way of a defined set of resource attributes".

So, RBV will be used as a theoretical framework to understand how IT affects the franchising governance. In this research RBV is our second theoretical framework and we will combine two popular theories, RBV and TCE in this study. IT capability is considered as a firm resource (Barney 1991, Broadbent, Weill and Neo 1999). So, in addition to the existing variables it is included into the model. Following RBV variables will be used in the research: (R.1) Brand Name, (R.2) System Specific Know-how, (R.3) Local Knowledge, (R.4) Financial Capital Requirement, (R.5) Coordination & Communication, (R6) IT Resources & Capabilities, (R7) Coordination and Communication

4. **Capability Concept and IT Capability**

4.1. *Capability Concept in RBV Literature*

IT impact on the network governance will be investigated through capability concept of RBV. The main term of the RBV "resource" has been used in different meanings and in various constructs. Even in management science there isn't an agreement on its usage. In literature terms like capabilities, assets, skills and competencies has been used interchangeably due to the broadness of descriptions and concepts. All these distinctions might be helpful in understanding all resources a firm possesses. However all these new naming can be served as a "new theory" (Barney and Arikan 2006).

Barney (1991) simply call all kind of assets as resources: "Firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness (Daft 1983)" (Barney 1991). In their 2001 paper Barney et al. define resources and capabilities together as "bundles of tangible and intangible assets, including a firm's management skills, its organizational processes and routines, and the information and knowledge it controls".

Makadok (2001) names two key differences between capabilities and resources: First, capabilities are a firm specific, "organizationally embedded, non-transferable, firm-specific resource. Second the purpose of capabilities is to improve the productivity of the other resources possessed by the firm".

Amit and Shoemaker (1993) define capabilities as "a firm's capacity to deploy resources, usually in combination, using organizational processes, to effect a desired end." Day (1994) claim that capabilities are created through the realities of firm's processes, "competitive market, past commitments and anticipated requirements", since then it is not possible to enumerate all possible capabilities. Ray et al. (2004) focus on processes and they claim that resources alone cannot be source of competitive advantage if they are not exploited through business processes.

4.2. IT Capability Concept in IT Literature

There is difference between resource and capability and having some resources doesn't mean possession of related capabilities automatically. Investment in IT hardware and software, hiring some IT professional cannot increase IT capability immediately. Since those investment should be processed and digested by the firm to create some level of capability.

The concept of capabilities is old and can be found in Penrose (1959). Capabilities can be defined as “complex bundles of skills and accumulated knowledge, exercised through organizational processes that enable firms to coordinate activities and make use of their assets” (Day 1994).

Aral et al. (2007) define IT capability as “practices and competences that support the use of IT”. Gao et al. (2009) claim that IT investment does not automatically mean IT capability, it takes time to be converted. Dong et al. (2009) claim that IT value creation has an indirect impact on firm performance. They state that “IT affects other resources or processes which in turn, lead to competitive advantage”. Pavlou (2004) uses the term “IT competence”. He states that “IT competence is different than IT investments because competence captures the effective utilization of investments in IT functionality, not merely IT expenditures.”

In mainstream MIS research IT has been regarded as a ‘strategic necessity’ (Clemons et al. 1993, Clemons & Row 1992, Clemons 1991, Powell and Dent-Micallef 1997). However, we won't use “IT capability” as a strategic asset in this research. The focus of the study is on common IT capability which enables monitoring and control. Basic communication and monitoring/control capabilities will be defined and examined. Algorithms which create performance difference and regarded as a strategic asset is out of scope of the research. Specific strategic IT capability investments will not be taken into account. Moreover, general purpose IT has a wide range of applicability without industry limitation.

IT research in management and marketing literature mainly focuses on IT/IS evaluation, investment justification (Guasekaran 2006) and IT impact on performance (Ross, Beath and Goodhue 1996, Powell and Dent-Micallef 1997, Bharadwaj, Sambamurthy and Zmund 1999, Santhanam and Hartono 2003, Bhatt and Grover 2005, Liang et al. 2010). Since IT investments of companies increase steadily, high return on IT investment and an effective and efficient use of IT has been a dominant sub-research topic. However, it is a difficult process to analyze the IT infrastructure of a network since the determination of the analysis ground is ambiguous.

IT capability, on the other hand is a multidimensional concept and has various concept formulation in the literature. In an early research by Ross et al. (1996) IT capability is defined as “the ability to control IT-related costs, deliver system when needed, and effect business objectives through IT implementations”. The concepts might include various domains such as network infrastructure, hardware, software, documentation policies, procedures of IT management, expertise and experience in IT platform management, and IT staff training (Law and Ngai 2007). Innovation Value Institute (2012) define IT capability as the arrangement of all IT resources and competencies for the sake of organization's goals. In short, they explain it as “what the IT organization can collectively do for the enterprise”.

In IT literature there are various capability analysis concepts which analyze the IT impact by including as many exploratory components as possible into the IT capability model. On the other side, determination of an IT measure for a research is not an easy task since measures are mostly latent variables (not directly observed), they should be captured through multi-item measures drawn from theory and practice-experience (Stratman und Roth 2002).

5. IT Capability Concept Offered

After scanning IT/MIS journals we get a list of IT capability variables used various studies (Table 1). IT capability measure variables in the literature can be grouped under 8 headings: (1) Capital, (2) Vision and Strategy, (3) Physical IT Strategy, (4) Managerial IT Knowledge and Skills, (5) Human Resources, (6) Technical IT Knowledge & Skills, (7) Relationship Capability, (8) Other Complementary Organizational Resources.

Beyond the articles investigating IT capabilities Powell and Dent-Micallef (1997) question why IT investment doesn't lead to competitive advantage. They state that IT infrastructure is easy to acquire by everyone and IT investment alone isn't enough for being competitive. However only those who are able to integrate IT, human and business complementary resources are able to have competitive advantage.

In general IS/IT studies (Table 1) use the taxonomy of organizational resources developed by Barney (1991). Even though the terminology of the studies differ, they are similar in construct; physical/equipment, human/individual skill/knowledge, organizational structure/rules/-relationships / culture (Kim et al. 2011).

Table 1. Summary of IT Capability Variables in the Literature

	Capability Groups in the Literature	IT Capability Variables in the Literature
1	Capital	Access to capital, Investment (spending) on various IT variables
2	Vision and Strategy	Business and IT vision, Planning, IT Strategy, Business IT strategic thinking, Dynamic Capabilities (The intensity of organizational learning), System Scope, System Focus
3	Physical IT Infrastructure	Proprietary technology, Reusable technology base, IT Components, Technology resources, IT infrastructure, Information Technology Components, Tangible resources: Physical IT infrastructure components, Technical IT infrastructure, Physical Base: Data transparency, Compatibility, Application functionality, IT infrastructure flexibility, Technical IT Infrastructure: Connectivity, Functionality, Accessibility, IT Assimilation
4	Managerial IT Knowledge & Skills	Managerial IT skills, Business functional knowledge and skills, Interpersonal and management skills, , IT Related Business Capabilities, IT Business Experience, Managerial IT Capabilities, Technology management knowledge and skills, IT management capability, IT management, IT standards, business knowledge, management knowledge, IT business process integration
5	Human Resources	Complementary human resources, highly competent IT human resource, Human IT Infrastructure, Human IT infrastructure: Technology management, The human IT resources, Human Components: Technical skills, Boundary skills, Functional skills, Human IT Resources: Technical and managerial skills, Training, Support Services
6	Technical IT knowledge & Skills	Technical IT skills, Design of IT Architecture, External IT linkages, Applications, Technical knowledge and skills, Technical IT Capabilities, IT personnel expertise, IT Relationship Resources, IT Operations, Data integration, Technical knowledge
7	Relationship Capability	Strong partnering relationship between IT and business management, IT business partnerships, Competitive Capabilities (IT business experience and relationship infrastructure), Outside-in Resources: External relationship management, Market responsiveness, customer orientation and synergy
8	Other Complementary Organizational Resources	Knowledge assets, non-IT physical assets, Operational IT Capabilities, Cost effective IS operations, Shared IT Services, Delivery of IS Services, Complementary business resources

In the literature there are various streams for IT capability concepts. Early capability research include capital as one of IT capability variables. However we believe that it was considered as a capability variable due to high investment requirement for IT hardware in 80's and 90's. Today IT investment doesn't cost as much as it used to be. Moreover IT investment is used in few studies lately and capital alone has the least explanatory power in those IT capability concept. So capital shouldn't be included in the model as a resource variable alone. However, IT value can be questioned under IT infrastructure.

The second group of variables is listed in Table 1 under the capability of "Vision and Strategy". This group consists of variables related to strategy, planning, strategic thinking, vision, and organizational learning, etc.. However, vision and strategy capability is strongly related with strategy. Our research focus on IT as a controlling and monitoring tool, and it isn't appropriate to include it into our model.

"Human resources" is a vague concept which includes managerial and technical skills and knowledge of the staff. Soft managerial skills generate more competitiveness compared to hard IT components. In IT literature some of the human related resources are listed under "managerial IT knowledge and skills", and some are listed under "technical IT knowledge and skills". Some research use a combined variable as "Human Resources". In our research however, we separate technical and managerial skills/knowledge and embed human components in these variables.

"Relationship Capability" is another important variable and highly affects the operational capability of the IT.

The last variable in the concept is "Complementary Organizational Skills" (Table 1).. Under other complementary organizational capabilities we can count inside-out and outside-in capabilities, etc.

As seen in the literature, IT's extensive impact cannot be measured just with hardware and software investment measures (Table 1). Rather, soft components like human resources, skills, experience, vision, strategy, internal and external relationships are the determining tools and should be included in the measurement. At this point we aim to use IT capabilities concept which helps us to analyze franchisors' IT capacity for communication and controlling

purposes. By IT capabilities we understand all tangible and intangible IT resources and IT skills of the technical and managerial personnel.

Table 2. IT Capability Concept Offered

IT Resource & Capability Variable		Explanation	Reference
1	IT infrastructure	Hardware base of the firm, Software base of the firm, IT connectivity, IT compatibility, IT modularity	Meta et al. (1995), Ross et al. (1996), Bharadwaj (2000), Bryd and Turner (2000)
2	Human-related Technical IT Resource	Technical IT skills, IT personnel expertise, Design, Programming, System analysis, Making technology work	Ross et al. (1996), Fenny and Willcocks (1998), Bharadwaj (2000), Bryd and Turner (2000)
3	IT Use Capability	Effectively usage of IT functionalities, How to use IT functionalities	Wang et al. (2012)
4	Relational IT Resource	Social capital arising from relationship btw IT function and other units, Relationship building btw internal business functions and external vendors, Coordination and interaction with user community	Wang et al. (2012)
5	Human-related Managerial IT Resource	Effective management of IT resources, Leadership Business system thinking, Values and norms, IT standards, Risk Management, Performance Measurement, IT value delivery as MAC tool, IT resource management	Mata et al. (1995), Fenny and Willcocks (1998), Bharadwaj (2000), Bryd and Turner (2000), Rao and Frazer (2004), Tallon (2008), Van Grembergen and De Haes (2008), ITGI 2003
6	IT Management Capability	IT staff development, IT asset and IT cost management, Vendor relationships	Wang et al. (2012)

As a result of the literature review process and experts views it has been decided to adapt IT capability concept developed by Wang et al. (2012). In general, researchers combine IT resources and IT capabilities (Table 1). However Wang et al. (2012) separate them. As theoretical framework Wang et al. (2012) use RBV and its resource and capability constructs in the explanation of the sources of competitive resources. They define IT resources as “commodity-like assets that are widely available and can be purchased from the factor market”. IT resources are: (1) tangible IT resources comprise physical IT infrastructure such as network, data, hardware and software; (2) human-related technical IT resources comprise technical skills, knowledge and experience possessed by IT professionals; (3) human-related managerial IT resources comprise managerial skills owned by IT professionals and governance structure of the IT unit; (4) relational IT resources involve social capital emerge from communication between IT unit and internal- external business functions and vendors (Wang et al. 2012).

IT capability is defined by Wang et al. (2012) as “a firm’s ability to mobilize and deploy IT resources effectively to perform strategic IT planning, develop IS, leverage and use IS, manage IT function and IT assets.” Their model consist of 4 capabilities: (1) IT strategy planning capability, (2) IT development capability, (3) IT management capability, and (4) IT use capability. IT strategic planning capability indicate the IT impact on a firm’s business strategies. IT development capability reflects cost effective development and implementation of IS that satisfy business needs. IT management capability expresses the skills to manage IT-related issues. IT use capability refers to the effectively usage of IT functionalities.

As mentioned before this research doesn’t focus on IT as a strategic asset but as a communication and control tool and investigates IT impact on the network governance mechanism. The model developed by Wang et al. (2012) includes strategic planning as an IT capability tool. “IT strategic planning capability” expresses IT impacts on firm’s business strategies, and how IT strategy associate with business strategy. However, this view doesn’t match with the aim of this study. Moreover, IT development capability is also exceeds the IT capability expectation of a franchising network. As a result, two items mentioned above have to be removed from the adjusted model.

In accordance with the latest research we believe that (1) Technology Base variable has the weakest impact in IT Capability model due to high and easy accessibility of most users. Today’s tendency in IT is getting more different. Cloud computing offer firms high IT capabilities with less investment. Firms can buy “modules” as many as necessary

depending on their sector, growth and complexity. So, small firms don't need to set up huge IT departments with high investment. However, risks might be higher depending on solution partners.

Human Resource has been used in literature as a capability variable. However, it is a vague term and it can be used for technical and managerial skills/knowledge at the same time. We prefer to separate two main knowledge and skills as managerial and technical.

(2) Technical IT Knowledge & Skills is more important than the technology base in terms of the contribution to the concept. Depending on the know-how, experience, knowledge and skills of the staff firms' IT capability might differ.

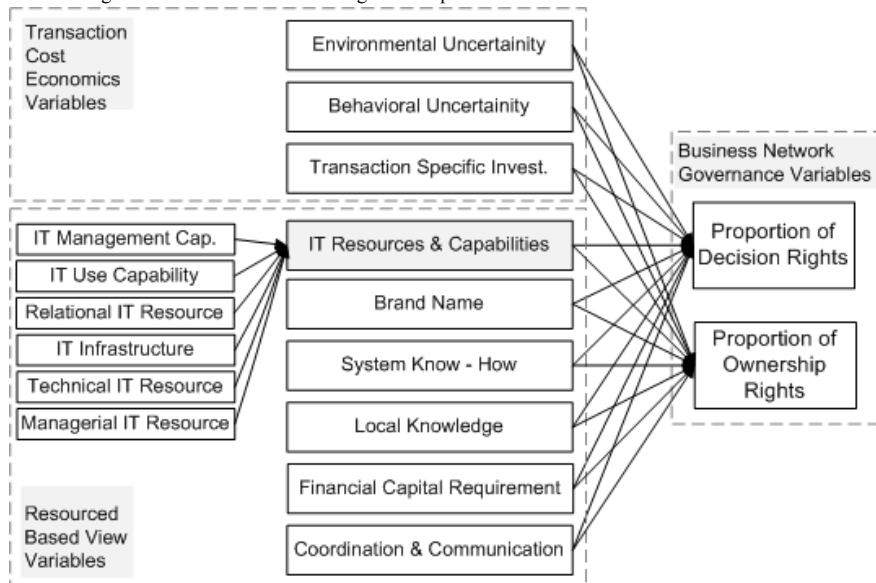
(3) IT Use Capability expresses the intensity of IT utilization in daily operations particularly in communication and decision making process among departments, network and network members. Mahmood et al. (2001) claim that there is a strong correlation between perception of ease of use and the perceived usefulness of IT. Moreover, they state that organizational support, education level, training level, and professional level have substantial effect on IT usage. Adam et al. (1992) analysis the relationship between ease of use, usefulness and usage. The research states that both usefulness and ease of use are important factors of system use.

(5) Managerial IT Knowledge & Skills and (6) IT Management Capability are the most important variable in the concept. Since they are socially complex processes to develop (Mata et al. 1995) it is the institution's ability to gain competitive advantage. We believe that soft IT issues are more important than IT hardware in terms of competitive capability development.

The order of IT capability list is also important. We claim that not only the degree of intangibility but also impact factor of the variables increases from (1) to (6) (see Table 2). Moreover, intangibility level is vital to analyze interaction effect among variables.

Under Complementary Organizational Skills various items are listed in the literature (see Table 1). While some of those items will be listed under our capability variables, some of them won't be included due to focus of the study.

Figure 1: Model offered to investigate IT impact on the Governance of Business Networks



6. Discussion

While we tried to construct a comprehensive model, limitations are inevitable. First, this study is conceptual and needs to be tested. After the data collection and required tests the model can be improved. It is expected that the test result might result in the reduction of some variables in IT and RBV&TCE variables.

As stated in the literature it is not easy to build IT capabilities. Moreover IT impact as a controlling and monitoring device on the governance of business networks hasn't been investigated deeply. Firms might find the opportunity to

test and compare their IT capability. Moreover, they might see which components of IT are more important to have a better IT capability and what might be the results of high IT capability on business governance.

References

- Aragon-Correa, J.A., Garcia-Moreales, V.J. and Cordon-Pozo, E. (2007), Leadership and organizational learning's role on innovation and performance: Lessons from Spain, *Industrial Marketing Management*, 36, pp.349-359.
- Argyris, C. and Schon, D. (1978), *Organizational Learning*, Addison-Wesley, London.
- Baker, W. E. and Sinkula, J. M. (1999), The synergistic effect of market orientation and learning orientation on organizational performance, *Journal of the Academy of Marketing Science*, Vol. 27, No.4, pp.411-427.
- Bass, B. M. (1990), *Handbook of Leadership: A Survey of Theory and Research*, New York: Free Press.
- Baum, R. J., Locke, E. A. and Kirkpatrick, S. A. (1998), A longitudinal study of the relation of vision and vision communication to venture growth in entrepreneurial firms, *Journal of Applied Psychology*, 83 (1), pp.43-54.
- Coad, A. F. and Berry, A. J. (1998), Transformational leadership and learning orientation, *Leadership and Organization Development Journal*, 19(3), pp.164-172.
- Collins, J. (2002), 'İyi'den 'Mükemmel' Şirkete: Kalıcı Başarıya Ulaşmanın Yolları, Orjinal: Good to Great, Curtis Brown Ltd./USA, Mart 2004, İstanbul.
- Conger, J. A. and Kanungo, R. (1988), The empowerment process: Integrating theory and practice, *Academy of Management Review*, 13, pp.471-482.
- Coopey, J. (1996), The learning organization: Power, politics and ideology, *Management Learning*, Vol.26, No.2, pp.193-214.
- Daft, R. L. (2008), *The New Era of Management*, Second Edition, Thomson South-Western Corporation, USA.
- Day, G.S. (1994), Continous Learning about Markets, *California Management Review*, Vol.36, Summer, pp.9-31.
- DeGeus, A. P. (1988), Planning as learning, *Harvard Business Review*, Vol.66, March-April, pp.70-74.
- Dickson, P. R. (1992), Toward a general theory of competitive rationality, *Journal of Marketing*, Vol.56, pp.69-83.
- Eren, E., Zehir, C. and Özşahin, M., (2004), Change management effectiveness during the crises: Benchmarking industries and firms in terms of change management applications and firm performance, GBATA – Global Business and Technology Association, International Conference, Cape Town, South Africa.
- Farrell, M. A., Oczkowski, E. and Kharabsheh, R. (2008), Market orientation, learning orientation and organizational performance in international joint ventures, *Asia Pasific Journal of Marketing Logistics*, Vol. 20, No.3, pp.289-308.
- Fiedler, F. E. (1996), Research on leadership selection and training: One view of the future, *Administrative Science Quarterly*, Vo.41, pp.241-250.
- Franwick, G., Ward, J., Hutt, M. and Reingen, P. (1994), Evolving patterns of organizational beliefs in the formation of strategy, *Journal of Marketing*, Vol.58, April, pp.96-110.
- Galbraith, J. and Lawler, E. (1993), *Organizing for the Future: The New Logic for Managing Complex Organizations*, San Francisco, Jossey-Bass.
- Galer, G. and Heijden, K. (1992), The learning organization: How planners create organizational learning, *Market Intellegence and Planning*, 10 (6), pp.5-12.
- Garg, V.K., Walters, B.A. and Priem, R.L. (2003), Chief executive scanning emphases, environmental dynamism and manufacturing firm performance, *Strategic Management Journal*, (24), 725-744.
- Garvin, D.A. (1993), Building a learning organization, *Harvard Business Review*, March-April, pp.89-99.
- Gil, F., Rico, R., Alcover, C. M. and Barrasa, A. (2005), Change-oriented leadership satisfaction and performance in work groups: Effects of team climate and group potency, *Journal of Managerial Psychology*, Vol. 20, No3/4, pp.312-328.
- Gonzalez-Benito, O. and Gonzalez-Benito, J. (2005). Cultural vs. operational market orientation and objective vs. subjective performance: Perspective of production and operations. *Industrial Marketing Management*, 34, pp.797-829.
- Halal, W. (1996). *The New Management: Democracy and Enterprise are Transforming Organizations*. San Francisco, Berrett Koehler.
- Hamel, G. (1996). Strategy as revolution. *Harvard Business Review*, 74 (4), July, August, pp.69-82.
- Hamel, G. and Prahalad, C. K. (1993). Strategy as stretch and leverage. *Harvard Business Review*, March/April, 75-84.
- Harbone, P. and John, A. (2003), Creating project climate for successful product innovation, *European Journal of Innovation Management*, 6(2), pp.118-132.
- Hennessey, J. T. (1998). Reinventing government: Does leadership make the difference. *Public Administration Review*, Vol. 58, No.6, pp.522-532.
- Huber, G. P. (1991). Organizational learning the contributing processes and the literatures. *Organization Science*, 2(1), pp.88-115.
- Hult, G. T., Snow, C. and Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management*, 29 (3), pp.401-426.
- Khandwalla, P. N. (1977). *The Design of Organizations*. Harcourt, Brace Javanovich Inc. USA.
- Kotter, J. P. (1990). *A Force for Change: How Leadership Differs from Management*. New York: Free Press.
- Laverie, D. A., Madhavaram, S. and McDonald, R. E. (2008). Developing a learning orientation: The role of team based active learning. *Marketing Education Review*, Vol.18, No.3, pp.37-52.
- Law, J. (1994). *Organizing modernity*. Blackwell, Oxford (In Felix T. Mavondo, Jacqueline Chinhanzi, ve Jillian Stewart, Learning Orientation and Market Orientation: Relationship with Innovation, Human Resource Practices and Performance, *European Journal of Marketing*, 2005, Vol.39, No:11/12, pp.1235-1263).
- Mavondo, F. T., Chinhanzi, J. and Stewart, J. (2005), Learning Orientation and Market Orientation: Relationship with Innovation, Human Resource Practices and Performance, *European Journal of Marketing*, Vol.39, No:11/12, pp.1235-1263.
- McDonough, E. F. (2000), Investigation on factors contributing to the success of cross-functional teams, *Journal of Product Innovation Management*, 17, 221-235.
- Nonaka, I. and Takeuchi, H. (1996), *The Knowledge-Creating Company*, New York, Oxford University Press.

- Ogbonna, E. and Harris, L. (2000), Leadership style, organizational culture and performance: Empirical evidence from UK companies, *International Journal of Human Resources Management*, 11(4), pp.766-788.
- Paparoidamis, N. G. (2005), Learning orientation and leadership quality: The impact on salespersons' performance, *Management Decision*, 43 (7), pp.1054-1063.
- Pennings, J. M., Barkema, H. and Douma, S. (1994), Organizational learning and diversification, *Academy of Management Journal*, Vol.37, No.3, pp.608-640.
- Peterson, R. S., Smith, D. B., Martorana, P. V. and Owens, P. D. (2003), The impact of chief executive officer personality on top management dynamics: One mechanism by which leadership affects organizational performance, *Journal of Applied Psychology*, 88 (7), pp.795-808.
- Porter, M. (1996), What is strategy?, *Harvard Business Review*, 74 (6), pp.61-78.
- Prahalad, C. K. and Hamel, G. (1991), *Competing for the Future*, Boston, Harvard Business School Press.
- Sackmann, S. A. (1991), *Cultural Knowledge in Organizations*, Newbury Park, CA:Sage.
- Santos-Vijande, M. L., Sanzo-Perez, M. J., Alvarez-Gonzalez, L. I. and Vazquez-Casielles, R. (2005), Organizational learning and market orientation: Interface and effects on performance, *Industrial Marketing Management*, 34, pp.187-202.
- Schein, E. H. (1993), On dialogue, culture and organizational learning, *Organization Dynamics*, Vol.22, No.2, pp.40-51.
- Senge, P., Roberts, C., Ross, R. B., Smith, B.J. and Kleiner, A. (1994), *The Fifth Discipline: Fieldbook*, New York: Doubleday Publication.
- Senge, P.M. (1990), *The Fifth Discipline: The Art and Practice of Learning Organization*, New York: Doubleday Currency.
- Shaw, R. B. and Perkins, D. N. T (1991), Teaching organizations to learn, *Organization Development Journal*, 9 (Winter), pp.1-12.
- Sinkula, J. M. (1994), Market information processing and organizational learning, *Journal of Marketing*, 58(1) , pp.35-45.
- Sinkula, J. M., Baker, W. E. and Noordewier, T. (1997), A framework for market based organizational learning: Linking values, Knowledge, and Behavior, *Academy of Marketing Science*, 25 (4), pp.305-318.
- Slater, S. F. ve Narver, J. C.(1995), Market orientation and the learning orientation, *Journal of Marketing*, Vol.59, July, pp.63-74.
- Stata, R. (1989), Organizational learning: The key to management innovation, *Sloan Management Review*, Vol.30, Spring, pp.63-74.
- Steyrer, J., Schiffinger, M. and Lang, R. (2008), Organizational commitment-a missing link between leadership behavior and organizational performance?, *Scandinavian Journal of Management*, (24), pp.364-374.
- Tobin, D. R. (1993), *Reeducating the Corporation: Foundations for the Learning Organization*, Essex Junction, VT: Oliver Wright.
- Tosi, H. L., Misangyi, V. F., Fanelli, A., Waldman, D. A., and Yammarino, F. J. (2004), CEO Charisma, compensation, and firm performance, *Leadership Quarterly*, 15, pp.405-421.
- Venkatraman, N. and Ramanujam, V. (1986), Measurement of business performance in strategy research: A comparison of approaches, *Academy of Management Review*, 1(4), pp.801-808.
- Waldman, D. A., Ramirez, G. A., House, R. J. and Puranam, P. (2001). Does leadership matter? CEO leadership attributes and profit ability under conditions of perceived environmental uncertainty. *Academy of Management Journal*, 44, pp.134-143.
- Wang, C. L. (2008). Entrepreneurial orientation, learning orientation, and firm performance. *Entrepreneurship Theory and Practice*, July, pp.635-657.
- Yousef, D. A. (2000). Organizational commitment: A mediator of the relationships of leadership behavior with job satisfaction and performance in non-western country. *Journal of Managerial Psychology*, 15 (1), pp.6-28.
- Yukl, G. (2002). *Leadership in Organizations*. Fifth Edition, Prentice Hall Inc., New Jersey.
- Zhu, W., Chew, I. K. H. and Spangler, W. D. (2005). CEO transformational leadership and organizational outcomes: The mediating role of human capital enhancing human resource management. *Leadership Quarterly*, 16 (1), pp.39-52.