

## **A systems based theory of organizational information**

A dissertation by Nguyen Manh Tuan

*Advisors:* Dr. Vo Van Huy & Dr. Nguyen Huu Lam

*Major subject:* Business Administration (code: 62340501)

*School:* HoChiMinh City University of Technology, VNU-HCMC

### **BRIEF SUMMARY**

This research was a theorizing endeavor for a systems based theory of organizational information. In essence, it is a conceptualization of the phenomena of organizational information in terms of the nature and the formulation process of information in organizations. Standing on the critical postmodernism school, the study took the systems pragmatism approach that relies primarily on both the Peircean pragmatism semiotics and the Churchmanian systems thinking. Our research approach naturally gave support to the contextualism as the theory of method, which readily accommodates some salient points of social and organizational phenomena in general and of organizational information in particular, which are historical, contextual and processual. To be consistent methodologically, we employed a research design of embedded multiple cases and a grounded theory for our data collection and analysis.

Two pilot studies and then four main organizational cases in consulting industries were conducted for field data to firmly ground the resultant emergent theory. Next we did the test of our emergent model on four existing case studies outside consulting industries, to raise the theoretical level of the emerging grounded theories from the substantive to the formal one. The three research findings were affirmed: organizational information as system, organizational information formulation as habit production, and the theoretical distinction among three common information categories.

By our systems based conception, organizational information would present itself as a unity that comprises nonexclusive six aspects: structure, function, process, context, time and epistemology. Each aspect in turn embodies a triad crossing the three human worlds (i.e. material, mental, social). Taking the relational perspective, organizational information would better manifest itself as a continuously dynamic triad, or equally, a Peircean semiosis that comprises three states of mind or ingredients (i.e. surprise/data, doubt/knowledge, and belief/information) and three respective relations, or human activities (i.e. experience, abduction, and inquiry).

### **CONTRIBUTIONS**

Our resultant grounded theory of organizational information may offer three major contributions. One, it could accommodate at the same time, the entity view, the process view, and the locus view of organizational information, thus is able to capture mostly the information related phenomena in organizations. Two, it could maintain a dynamic triadic relation of organizational information, which takes a continuous transformation over time and in space. This helps to emphasize the emergence or mediation of information as habits, neither ideas nor activities. Three, it could present a comprehensive information taxonomy for distinction among three common categories of information, and thus, clearing up a long standing confusion around this.

We posit that our grounded systems model could propose a fundamentally theoretical framework about the nature and the process of information, which would be also

a theory native to the information systems field. By this, our resultant middle range theory would be a distinctive contribution for making information systems as a reference discipline in its own right.

## **THEORETICAL AND MANAGERIAL IMPLICATIONS**

Our research implications were emergent when we approached some subject areas relating to yet outside the conceptualization of organizational information. First, our grounded model of information helped us reach a pragmatic paradigm of information, which would position the philosophical foundations of the phenomenon of information in terms of its ontology, epistemology, methodology, axiology, and so on (e.g. Fitzgerald & Howcroft, 1998).

Next, our resultant model of organizational information was also used to shed the light of evolutionary, systemic, and triadic information on organization studies. Assuming organizations as information-bonded systems (Gharajedaghi, 2005), we showed that organizational theories and phenomena could be expressed via our systems based triads of organizational information.

Then, our systems model of organizational information suggested a pragmatic information theory of organization, which would consider organization a continuous stream of semiosis that is an indefinite process of information focusing on the formulation of organizational information as organizational habits. With its systemic and triadic nature, our habit-forming theory of organization would be more theoretical capabilities than Weick's (1979; 1995) sense-making theory of organization.

Next, we proposed an information based theory of the firm relying on the resultant model of information-as-system. Our suggested model might excel the other theories of the knowledge based school in two points. One, it would provide both a parsimonious yet powerful schema of information (or knowledge) categories and a firm mechanism of information formulation (or use), both of which constitute the fundamentally theoretical framework for the school. Two, it could combine the resource-based, the process-based and the product-based views, hence go beyond the knowledge based school of the firm.

In addition, our systems theory of information also revealed several fresh taxonomies of knowledge related phenomena, and in specific beyond Gibbons et al's (1994) widely-known two modes of knowledge production in management studies. With our DKI model as a basis, for example, we came up with the following four new triadic taxonomies: a triad of knowledge types (i.e. data, knowledge, information), a triad of knowledge production mode (i.e. problem-led, method-led, theory-led), a triad of context of research (i.e. context of discovery, context of justification, context of application), and a triad of type of research (i.e. theory building research, theory testing research, theory application research).

Then, relying on our model of information-as-system, we also suggested a new framework for problem solving process. Hence, our information based framework helped to fill a gap in the literature of problem solving as to what problem formulation is (substance) and how problem formulates (method).

Last but not least, our three managerial implications were shown: one, on organizational decision making; two, on design of organizations; and three, on a project proposal of a virtual clinic for business management consultancy./.

Advisor 1  
Vo Van Huy, Ph.D

Advisor 2  
Nguyen Huu Lam, Ph.D

Ph.D. candidate  
Nguyen Manh Tuan