The Role of Trust in Managing the Information Systems Enterprise

Norman L. Chervany, University of Minnesota
D. Harrison McKnight, Michigan State University
(May 2, 2001)

There are many different responsibilities and activities involved in the planning and management of the information systems enterprise in an organization. In three broad areas, these responsibilities and activities include: (i) strategic planning – for both the specific information systems applications required to support the organization’s strategy and the technological infrastructure with which these applications are built and on which these applications run; (ii) systems development – for both the systems applications which are designed and built internally and the systems packages which are purchased from third party vendors and installed; (iii) operations – for both the ongoing processing of the systems applications and the maintenance and upgrade of both the applications and underlying technology infrastructure. In all of these areas, a large number of normative models have been proposed to guide the effective execution of these responsibilities and activities.

In contrast to these normative suggestions, this paper takes a different, yet complementary view of the execution of the responsibilities and activities required to plan and manage the information systems enterprise in an organization (hereafter referred to as the information management function).

Specifically, this paper recognizes that there are a variety of roles, played by people, that are involved in the information management function. Further, the paper recognizes that to fulfill the requirements of these roles the people in them have to depend upon others, in- and outside of the organization. And finally, the paper recognizes that the knowledge and skills possessed by these other people are not fully understood and thus not fully duplicatable by the people occupying the information management function roles.

In situations such these, trust among the interdependent parties is a crucial ingredient in making the relationships operate successfully. At an over-arching level [a much more detailed definition is supplied in the third section of the paper], trust can be defined as:

One is willing to depend on, or intends to depend upon, an other party with a feeling of relative security, even though negative consequences are possible and one cannot control that other person.

This paper examines the importance and source of trust in the working relationships among the people involved in the management of an organization’s information management function. The paper is divided into four major sections. The first section defines the information management function. In this
definition, particular attention is devoted to identifying the major roles and responsibilities that operate within the function. The second section outlines a conceptual model that defines the antecedents of trust. The third section reexamines the information management function’s roles and responsibilities in light of this model of trust. The purpose of this re-examination is to identify where trust plays a part in the execution of the roles and responsibilities and to hypothesize what can be done within the organization to increase the levels of trust. The final section discusses the implications of the ideas in the preceding sections for research, teaching, and practice.

The Information Management Function

To understand the major roles and responsibilities in the information management function, it is necessary to start by defining the major goals and critical decisions of the function. This section starts by first defining these goals and critical decisions required to achieve them. Based upon these, the section then turns to the identification of the major organizational entities and the major roles and responsibilities that tie them together within the information management function. In this second discussion, particular attention is paid to identifying the nature of the working relationships – the knowledge and skills each party brings to the relationship, the desired outcomes of a successful relationship, and the dependencies between the parties that require trust if the relationship is to be successful.

The Goals of and Critical Decisions within the Information Management Function

Figure I schematically portrays the major decision components within the information management function. The ultimate goal of the information management function is to provide a set of ongoing information systems applications that support the organization’s strategy. These applications can be simple or complex. They run the gamut from personal support systems that enable individuals to do their jobs more effectively to systems that support for the key intra- and inter-functional processes employed by the organization to systems that link the organization and its channel partners into an effectively working industry supply chain. As the set of applications becomes more complete, more strategy-driven, and more infused throughout the organization, the ability to gain competitive from the output of the information management function dramatically increases.

Because of their potential importance, an organization cannot rely upon this set of applications to arise in an ad hoc fashion. Instead, to develop and implement this set of applications requires the successful execution of four major, separate, but interrelated sets of decisions – (i) the information systems/information technology (IS/IT) planning decisions, (ii) the information systems business evaluation decisions, (iii) the information technology platform and tools evaluation decisions, and (iv) the information systems/information technology project design and implementation decisions.

The information systems/information technology planning decisions – This set of activities and decisions involve a two-way street. First, it results in the translation of an organization’s strategy into a
vision of the information systems applications required to implement that strategy. In parallel, it also results in the translation of an organization’s strategy into a vision for the technology infrastructure required to develop and run the information systems applications. Second, it provides a critical process through which the members of the information management function can provide input that influences the definition of an organization’s strategy.

The driving force in these decisions is to develop an information systems/information technology strategic story – a logically compelling narrative that relates the potential capability of IS/IT to the strategic vision of the organization. In these decisions an exact quantification of the benefits, costs, and investments of the various system applications and technology infrastructure is not paramount. Rather, the people involved are trying to create a vision of what might be. Further, while input from people throughout the organization and its channel partners is important, the key people involved in creating this vision are the members of the organization’s senior management team.

The information systems/information technology business evaluation decisions – This set of activities and decisions are where the IS/IT strategic story is translated into a specific information systems/information technology benefit, expense, and investment plan. It is where the decisions to commit resources – people, money, and energy – to specific information systems and information technology projects is made. Unlike the planning decisions, decisions here are guided by very specific criteria (e.g., economic value added, market share, and competitive positioning). Clearly, the organization’s senior management team will continue to be involved in these decisions. In addition, however, these decisions also involve significant input from people with management responsibility for the major stakeholder groups – users and information systems professionals – affected by the project being evaluated.

The information technology platforms and tools evaluation decisions – This set of activities and decisions involve the identification and evaluation of new information technology infrastructure that might be appropriate for an organization. These decisions result in the information technology platforms upon which the specific information systems applications will operate and the information systems development tools which will be used to build these applications. While seeking important input from an organization’s senior management and key information systems application stakeholders, the primary people involved with these evaluations are information technology specialists. The primary goal in these evaluations is to learn about the capability of a new technology platform or a new development tool. If, these evaluations result in a new platform or tool as promising, it is passed on to the business evaluation decision process.

The information systems/information technology project design and implementation decisions – This set of activities involves the myriad of analysis, design, training, and installation decisions that result in a completed information systems or information technology project. These activities are where the functional – both managerial and technological – requirements are defined. The driving forces in these decisions are technological feasibility, economic/budget compliance, organizational fit (including
process and work redesign), and the management of change (including user involvement, communication, and training). People from all the stakeholder groups – both project users and IS/IT technology professionals – are involved. The relationship between the economic evaluation decisions and the design and implementation decisions is that it is the results of the latter that will determine whether or not the projected benefits, costs, and investments identified of the former become a reality.

Reflecting on these four sets of decisions, three significant points emerge. First, while highly interrelated, the decision sets do not have the same focus. Second, the decision sets are driven by different groups of people with in an organization – groups of people who have different perspectives, different knowledge, and different skills. Third, because they are trying to accomplish different subgoals on the path to providing a set of ongoing information systems applications that support the organization’s strategy, the decision sets employ different criteria. As will be discussed later, the need for and the role of trust in the successful operation of the information management function has its genesis in the non-equivalence but interrelatedness of these four sets of critical decisions.

The Roles and Responsibilities within the Information Management Function

The preceding section defined the broad categories of decisions that needed to manage the information management function. Who in the organization is responsible for making these decisions? How are these decisions coordinated among the various parties involved in their resolution? This section describes the major organizational entities involved in the management of the information management function. The linkages – the relationships – between these entities, however, are not discussed. This will be done in the third section of the paper, “Trust in the Information Management Function” after a model of trust has been provided.

Figure II schematically portrays the major organizational entities involved in the information management function. The four basic information management function organizational entities are: (i) the corporate senior management group, (ii) the corporate information systems/information technology group, (iii) a set of information systems user groups, and (iv) a set of information systems/information technology and tools vendors.

Corporate senior management and corporate information systems/information technology group – The individual responsibilities of corporate senior management and corporate IS/IT group are clear. Senior management is responsible for the definition and oversight of the organization’s strategy. The corporate IS/IT group is responsible to make sure that the information technology and tools to implement this strategy are in place. Further, working with the wide variety of IS/IT users both within the organization and among the organization’s channel partners, corporate IS/IT group also needs to define and manage the processes required to design, develop, and operate the information systems required by the organization’s strategy.

Given these two sets of interdependent responsibilities, consider the primary focus of the knowledge, skills, and perspectives of these two organizational entities. Collectively, the senior management team is
focused, from a holistic perspective, on the strategic and operating challenges faced by the organization. They have a wide diversity of experience-based knowledge and skills, only a small part of which may relate to information systems and information technology. They understand the necessity of using appropriate information systems and information technology as part of their organization’s strategy. They do not exactly know ... nor should they ... what this means and even less so know exactly how to accomplish it. Analogously, the corporate IS/IT professionals are collectively technologically sophisticated. While individuals in the group may have a variety of business-oriented experienced, they do not collectively have ... nor should they ... the same detailed insight into the business problems faced by their organization that is possessed by senior corporate management. But, they know that their success will be measured in their ability to support the organization’s strategy.

The picture painted above demonstrates a basic principle at work in the management of an organization’s information management function: To accomplish their individual, yet highly interrelated goals, an organization’s senior management and an organization’s corporate IS/IT group are dependent upon one another. They must work together effectively to accomplish their goals. They cannot succeed by themselves.

Corporate information systems/information technology group and the information systems user groups – Given the capability of today’s distributed and web-based technologies, the set of IS/IT user groups is increasingly more diverse and complex. Information systems users groups exist both inside the organization and external to the organization ... its employees and its customers and other channel partners. As corporate IS/IT management turns its attention from their relationship with senior corporate management to their relationships with this diverse set of IS/IT user groups, their responsibilities are twofold. First, they must collaborate with the user groups to identify the users’ functional and cross-functional IS/IT strategic needs. Second, they also must collaborate with the user groups to implement the IS/IT projects that have been economically evaluated and approved. In contrast, the responsibilities of the users groups are to meet their functional and cross-functional business objectives. While the use of information systems and information technology is almost certainly going to be required to do this, the use of IS/IT is, to its users, a means to an end not an end in itself.

Consider the comparative knowledge, skills, and perspectives that the corporate IS/IT group and the set of information systems users groups bring to their relationship. We find the same pattern that we found when comparing corporate senior management and the corporate IS/IT group. The users are functional/business experts. The corporate IS/IT group are systems and technology experts. While there is some overlap, neither party in these relationships knows enough to meet their interdependent responsibilities by themselves. Thus, a principle we saw above is once again operating: To accomplish their individual, yet highly interrelated goals, an organization’s corporate IS/IT group and its diverse set of users are dependent upon one another. They must work together effectively to accomplish their goals. They cannot succeed by themselves.

Corporate information systems/information technology group and the information


**systems/information technology and tools vendors** – A story similar to the preceding two exists here. With respect to the IS/IT vendors, the responsibilities of corporate IS/IT group is to identify and select the technologies, tools, packaged systems, and consulting services that meet the organization’s strategy. But, while knowledgeable about the technologies and packages, they are not experts. To further complicate the picture, the set of vendors offering potential IS/IT solutions to an organization is growing increasingly diverse. Analogously, the vendors are responsible to sell the appropriate technologies, packages, and services to their clients. But, while knowledgeable about the business needs of their clients, they are not experts. Thus, the reoccurring principle arises one more time: *To accomplish their individual, yet highly interrelated goals, an organization’s corporate IS/IT group and its diverse set of IT/IS vendors are dependent upon one another. They must work together effectively to accomplish their goals. They cannot succeed by themselves.*

The interdependencies among the four basic organizational entities involved in the information management function are inescapable. We believe that the most effective way to carry out these interconnected activities is to have them take place in an environment characterized by high levels of trust. This, however, begs the question: How can this be accomplished? The third section in the paper suggests provides some answers to this question. But, before discussing these answers, it is necessary to define more precisely what is meant by trust and its antecedents. This is the topic of the next section.

**What is Trust: Its Definition and Its Antecedents**

[HARRISON – HERE IS WHERE WE CAN “DROP IN” OUR TRUST MODEL FROM A ONE OF OUR PREVIOUS PAPERS. WE NEED TO DISCUSS WHICH WRITE-UP WE WANT TO USE. I AM LEANING TOWARD THE FIRST PART OF OUR BOOK CHAPTER – “TRUST AND DISTRUST DEFINITIONS: ONE BITE AT A TIME” – BUT I AM OPEN TO WHATEVER MAKES THE MOST SENSE. WHATEVER WE CHOOSE, WE DO NEED TO DECIDE WHETHER OR NOT WE NEED TO EXTEND/MODIFY OUR MODEL BASED UPON THE QUESTIONS AND SUGGESTIONS I RECEIVED DURING MY VISIT TO THE UNIVERSITY OF GEORGIA.]

**Trust in the Information Management Function**

As defined previously (see Figure II), there are four organizational entities involved in the management of the information management function. As also noted earlier, we believe that high levels of trust are required for these organizational entities to work together effectively.

Using the model of trust defined in the previous section, this section recommends a number of ways in which these high levels of trust can be developed and maintained. At the center of these are five pivotal information systems/information technology relationship roles – (i) chief information officer, (ii)
user account executive, (iii) corporate IS/IT liaison, (iv) corporate IT category specialist, and (v) IS/IT client manager. These role are graphically depicted in Figure III. We believe that the successful execution of these relationship roles is necessary – albeit not sufficient – for the information management function to fulfill its obligation to the organization. In contrast, we believe that if these relationship roles are not successfully executed, then regardless of how well the individual organizational entities do their jobs, the outcomes of the information management function will fall short of delivering its full potential to the organization.

Before discussing these roles (and other trust-building mechanisms) in detail, one significant caveat is necessary. While the discussion that follows describes these roles as though there were held by separate individuals, this is not necessary. In many, especially smaller, organizations, economic reality would not support full-time people holding all of these positions. The key is that the roles must be filled and their responsibilities must fulfilled regardless of the full-time/part-time status of the incumbents.

**Implications and Recommendations**

This section discusses the implications of the application of the trust model for the management of the information management function. First, the implications for research are presented. But, there are some immediate implications for both teaching and practice that do not have to wait for the results of additional research. These are also presented in this section.

[HARRISON – ONCE THE REST OF THE PAPER IS WRITTEN WE NEED TO DISCUSS WHAT THESE IMPLICATIONS WILL BE.]