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## **INFORMATION MANAGEMENT FUNCTION IN A MODERN ORGANIZATION**

### **1. Introduction**

Although most organizations rely on information technology (IT) to support many of their information processes, there is also a large amount of information and knowledge that is not captured by or represented in these computer-based information systems. In particular, managers must make decisions and choices about future actions. Invariably, the decisions made are based on imperfect information. In such situations managers must use their accumulated knowledge and expertise to evaluate and interpret imperfect information in choosing the best course of action in the light of objectives.

It is arguable that the majority of information that managers draw upon is not embedded in computer systems – rather, it is principally in the heads of the staff. This is particularly true of high-level information; that is knowledge about the information that resides within the organization.

It has long been recognized that most managers get most of their information by talking to people. Many of the issues that they deal with are poorly structured, messy or fuzzy problems. Many nuances describing a concrete decision situation are typically lost when information is put into writing or stored in a computer. That is why tacit knowledge is difficult to represent in computer systems. This is, for example, the whole area of body language – facial expressions, the tone of voice, the bodily postures that people adopt. And information that is not captured in computer-based information systems is especially relied upon in all decision-making processes.

This article revisits the notion of Information Management and introduces the new concept of Information Management Function. It also discusses the new idea of Information Management Superiority, a concept that attempts to address the challenge of aligning organizational goals with appropriate ICT investments. Last but not least, it describes a conceptual framework based on the concept of IM function, which can be used by organizations to understand their current IS strategy and to explore possible other strategies within their resources constraints.

## 2. Information Management Defined

Information Management (IM) is defined as a conscious process by which information is gathered and used to assist in decision-making at all levels of an organization [Hinton 2006, p. 2].

According to this definition, true information management is a *conscious process*. IM does not just happen, it has to be thought about, planned, systematic and well-structured. Secondly, the purpose of IM is *to assist in decision making*. Information management therefore works best when the conscious planning process starts not with information but with the decisions that have to be made. This is along the line with the inductive thinking proposed by Business Process Reengineering – sort of trying to turn the whole situation around, and start from the different end.

Thirdly, IM is for the benefit of *all levels of an organization*. In many organizations, IM is perceived as being a control mechanism for the benefit of senior managers or shareholders. But it should be as much about aiding decision making across and between all levels of the organization.

Last but not least, the above definition makes no reference to computers or information technology. It is a commonly held belief that information is essential to all organizations, but that skilled people are the most important asset, regardless of organizational goals or industry sector. Indeed, as we move into a more information intense environment it is the combination of people and information resources that will deliver superior performance and competitive advantage.

According to C. Frenzel [1999], the leverage of information and people is so powerful that managers in high-performance organizations devote considerable energy to managing information, its delivery system, the people who deliver it, and those who use it. The combination of skilled people and advanced IT has revolutionized the concept of management.

This, in turn, is along the line with the basic definition of an Information Systems. According to this very useful approach an information system is defined as a system which assembles, stores, processes and delivers information relevant to an organization or to society [Avison, Fitzgerald 2003]. The authors of this definition stress that an information system is a human activity (social) system which may or may not involve the use of computers. It is evident that, regardless of an approach, a social subsystem (*people*) makes a basic, subjective element of every IS.

At the same time, however, a widespread misconception about IM is that it is only concerned with information technology management. It is true that some of the concerns in the IT area do form part of the IM agenda. Nevertheless, there is a plethora of wider issues concerned with managing much broader information resources which transcend the narrow focus on simple technology management.

The prevailing issue in the debate on information management has been how to bridge the gap between the hard and soft aspects of the IM issue. The obvious cornerstone for effective IM is the concept of information sources. But IM also

envelopes issues as diverse as managing information resources through to operational technology management through to much, much broader strategic thinking and change.

### 3. Introducing the Information Management Function

The last decade has radically altered the way organizations work. The ability to manipulate critical management information has stimulated a progression from applying information and communication technologies (ICT) to automate work, to applying it to enhance decision-making activities.

However, often the potential of the technology has outstripped the ability of organizations to make use of it. As a result, many businesses see their use of ICT as a necessary and costly requirement for business survival, rather than means of unleashing the untapped competitive advantage of their company.

One of the reasons for this is that there has been a failure to establish any relationship between ICT investments and productivity gains. Information systems designed to support management effectiveness create problems for management as the benefits they produce tend to be qualitative in nature, e.g., gains in customer service, improved management communication, enhanced corporate image. Equally, these benefits may be cancelled out by competing organizations also investing in similar systems. These systems clearly represent intellectual assets that are the foundation of information-based organizations.

In the light of this the following question remains open: How should these organizations value them and what measures should be put in place to protect such an asset? Nevertheless, the general progress in the proper understanding and utilizing of the information technology is unarguable.

The way that organizations have tried to manage this technology has gone through several distinct stages. First it was realized that the data needed to be separate from the systems that processed that data to create specific management information. The step beyond the traditional data processing departments and system development departments was taken when the Information Management Function began to emerge. This recognized that that information has become an extremely valuable resource and that a coherent approach was necessary if organizations were to achieve competitive advantage through information systems. Often the Information management function was headed up by the Chief Information Officer (CIO).

This function is concerned with all aspects of managing information within organizations. However, the growth in the use of IT has meant that many people confuse information management with the management of information technology. While this is an important aspect of the information management function, it tells only part of the story.

Information management function has responsibility for maintaining expertise sufficient to assist individuals, groups and other functions in their information management to provide integration across the organization and build and maintain the corporate information infrastructures necessary to for integrated information processes [Hinton 2006].

The information management function has a special expertise for business process and system development. A unique role of information management is integration, both in development and information operations. This cross-functional, integrative role makes information management very broad in its domain of interest, dynamics and demanding. So, the role of information management function is no longer seen in isolation but is intertwined with that of the other organizational functions.

The structure of the information management function can vary greatly depending on an organization's culture and the characteristics of the industry sector it is in.

#### **4. The Concept of Information Management Superiority**

In many ways the development of the Information Management Function is traced by the new concept of the Information Management Superiority [Strassman 1999]. This concept attempts to address the challenge of aligning organizational goals with appropriate ICT investments. In this framework information management superiority is maintained by five core ideas:

1. **Governance:** governance concerns power and applying an understanding of the distribution and sharing of power to the management of information and communication technologies. Information management is the process by which those who set policy guide those who follow policy and governance is central to this.

2. **Business plan alignment:** if plans for the use of ICT are to have credence then they need to be in line with organizational business plans.

3. **Process improvement:** regular analysis of all ICT activities is necessary to discover areas where improvements might be made.

4. **Resource optimization:** in seeking to maximize the benefits of information resources, managers must take into account their use of other resources (such as people, money and time). These resources may be utilized better elsewhere in the furtherance of organizational goals.

5. **Operating excellence:** operating excellence is concerned with the ongoing delivery of superior performance and quality across all business processes.

It is the constant interaction of these five core ideas that results in information management superiority. Governance is critical, however, as organizations face the challenges associated with technological change. Establishing a guiding policy for ICT acquisition and deployment is now more significant than owning and operating

large computer systems. Governance allows organizations to attend to policies which support the best use of their information resources without necessarily meaning they have to be responsible for the technical operations to support this. This is reflected in the significant move toward the outsourcing of these technical operations to a variety of third-party ICT service firms.

## 5. The IM function and the IS strategy

The information management function can use the grid (see fig. 1) to seek out those applications that have the greatest strategic potential. The categories are:

1. **Support** – applications that improve management effectiveness but are not critical to the organization. The benefits they deliver are predominantly economic as with the cost of savings realized from automation (payroll systems, accounting systems etc.).
2. **Key operational** – applications that sustain the existing business supporting core organizational activities (inventory control, order management etc.).
3. **Strategic** – applications that are critical to both current and future organizational goals.
4. **High potential** – applications that can be seen as innovative and potentially of future strategic importance (electronic commerce applications, expert systems etc.).

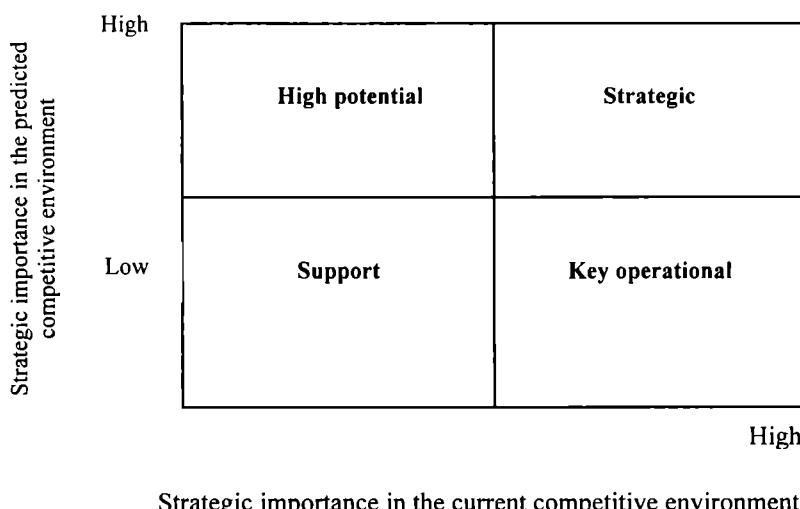


Fig. 1. The applications portfolio grid for the IM function

Source: own research based on [Hinton 2006].

A complementary approach was introduced in 2001 by J.J. Parsons (ACCA 2001). This conceptual framework can be used by organizations to understand their current IS strategy and to explore possible other strategies within their resources constraints. The framework suggests six generic strategies:

1. Centrally planned.
2. Leading edge.
3. Free market.
4. Monopoly.
5. Scarce resource.
6. Necessary evil.

In the **centrally planned** approach IS strategy is developed to support the greater organizational strategy and is managed by the highest level. The *information management function* plays the role of service provider closely linked to the user community to deliver the business demands and combining this with significant input into the ongoing organizational planning process.

The **leading edge** strategy is implemented when the organization believes that innovative new technologies will create competitive advantage. It can produce huge rewards but is extremely high-risk for the organization. The *information management function* plays the role of experimenter and promoter, constantly pushing the technical boundaries.

In the **free market** approach ICT requirements are determined by an organization's business unit (e.g., marketing department, human resources department etc.). These requirements may be supplied either internally or externally subject to best price and service. The role for the *information management function* is as a competitive business unit providing ICT solutions in competition with external service providers. Very often this approach uses an outsourcing of the components of the organization's information management structure to specialized ICT companies.

In the **monopoly strategy** the organization has decided that there will be one internal source of supply for ICT. The *information management function* is reactive with no requirement to direct future developments.

The **scarce resource** strategy requires that there must be clearly justified returns on investment in new systems with little scope for innovation. The *information management function* tries to make the best of the limited resource. Generally, however, this strategy has a long-term negative effect on information exploitation.

The **necessary evil** approach is adopted by organizations that believe that information is not important to their business. The role of the information management function is to provide the minimum level of resources, just enough to meet basic needs.

## 6. Conclusions

This article describes the basic notion of Information Management and discusses relatively new concepts of Information Management Function, Infor-

mation Management Superiority, and a conceptual framework based on the concept of IM function, which can be used by organizations to understand their current IS strategy.

A natural question which follows is, So what is the future of the management of information? Modern companies have to create new business knowledge and disseminate it widely through the organization. The new concept of knowledge management is supposed to allow for knowledge sharing throughout the organization. Knowledge-creating organizations, sometimes dubbed learning organizations, create techniques, infrastructures and systems to encourage employees to share what they know and to make better use of accumulated workplace knowledge.

It seems that knowledge management will not replace information management, however. Most likely, it will constitute a complementary approach for all the organizations which want to take full advantage of their information resources, and strengthen their market position.

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## FUNKCJA ZARZĄDZANIA INFORMACJĄ W NOWOCZESNEJ ORGANIZACJI

### Streszczenie

Zarządzanie informacją jest definiowane jako świadomy proces, w którym informacje są zbierane i wykorzystywane przy podejmowaniu decyzji na wszystkich poziomach organizacji. Celem funkcji zarządzania informacją w organizacji jest zapewnienie odpowiedniej wiedzy fachowej, niezbędnej w procesie zarządzania informacją. Funkcja ta ma zapewnić integrację wszelkich działań informacyjnych w organizacji oraz pomóc w stworzeniu efektywnej infrastruktury informacyjnej. Koncepcje zarządzania informacją i funkcji zarządzania informacją stanowią podstawę bardziej wyspecjalizowanego podejścia, mającego na celu opracowanie całościowej strategii informacyjnej danej organizacji.