Business information dissemination processes within industrial organizations in Israel: communication media selection and the formal versus informal usage of these media / Leah Talnir

## **Abstract**

In today's dynamic and competitive markets, it is crucial for decision makers to know their business environment in order to develop and maintain a competitive advantage. Monitoring the business environment enables decision makers to anticipate market developments, hence make informed decisions and take informed actions. Equally important, however, is the timely dissemination of the knowledge acquired to members of the organization who need it. Thus, the collection and analysis of business information and the effective distribution of the intelligence gained is paramount to maintaining a competitive advantage, hence, to the success of the organization.

The objective of this research was to study business intelligence dissemination processes within industrial organizations in Israel, focusing on communication media selection and the formal versus informal usage of these media.

Understanding the diverse mechanisms by which business intelligence is disseminated within organizations as well as individuals' media selection considerations can contribute significantly to the design and implementation of more effective information and knowledge management systems, and thereby enhance knowledge sharing and use within organizations.

The research questions were as follows: 1) What kinds of business intelligence are disseminated within the organization? 2) Are there organizational policy, rules, established procedures, or norm pertaining to the dissemination of business intelligence? 3) Who are the providers of business intelligence within the organization? 4) Who are the receivers or users of business intelligence within the organization? 5) What mechanisms are used for the dissemination of business intelligence? 6) What are sender's reasons for the dissemination of business intelligence? 7) What is the effect of the

hierarchical relationship between the sender and receiver of the intelligence on the choice of a dissemination mode? 8) What is the effect of the functional group of the communicating individuals on the choice of a dissemination mode? 9) What is the effect of the kind of intelligence on the choice of a dissemination mode? 10) What is the effect of the message content on the choice of a dissemination mode?

The method used for data collection was in-depth interviewing of the semi-structured type: this open-ended approach was well suited to the exploratory nature of our study. In-depth interviews were conducted with eleven individuals in five industrial organizations, and a freelance information broker. Eight of the respondents were selected using snowball or chain sampling, as industrial organizations in general, and personnel involved in business intelligence in particular, proved to be very difficult to approach. The qualitative data were analyzed inductively, from respondents' individual perceptions to general perspectives of the process studied.

It was found that similar kinds of business intelligence are disseminated in all organizations studied, for example: market surveys, sales reports, competitor information, analyses of the economic and political trends and developments in countries of interest, intelligence property analyses, and information on business opportunities. Differences were found, however, in the types of information sources used by the organization studies.

These is no general information policy in the organizations, although there are set procedures concerning specific issues, which are generally not followed. No difference was found between the government technology company and the three high-tech companies with regard to the establishment implementation of a formal information policy. Also, in all four organizations the lack of a policy has had the same consequences: the information professionals and business intelligence managers are the ones who make decisions regarding information dissemination.

The intelligence providers in the organizations studied are not necessarily those who possess the relevant information or knowledge: in fact, the knowledgeable individuals in the organization generally are not willing to

share their knowledge or any information they have with others. We found that in the organizations studied the information professionals are the ones who disseminate business information regularly; personnel in order functional groups also provide information, but only casually. In the pharmaceutical company, the main providers of business intelligence are the business development personnel. In the high-tech companies and the government technology company the providers of business intelligence besides the information professionals and business intelligence managers are the marketing and business development personnel, salespersons, company's agents abroad, and field engineers and technicians.

The receivers of business intelligence are managers and individuals in the following functions: Marketing & Sales, Business development research and Development, Intellectual Property, Finance and senior management. Business intelligence is needed most by personnel in the Marketing, sales, and Development departments and by senior management. Information is delivered not only to the person who initially requested it, but also to other individuals, based on the discretion of the information providers. The implication is that the latter are ones who, to a large extent, determine the patterns of information flow in their organizations.

The following communication media are used in the organizations studied to deliver information of any kind: e-mail, oral channels, various knowledge management tools, newsletters, virtual knowledge communities, and discussion group.

The main finding of our research is that e-mail has become the primary mode of communication in the organizations studied. We found that e-mail is preferred over any other medium, traditional or computer-based, by individuals across functional groups and hierarchical levels. Oral interaction was found to be the one other major mode of communication besides e-mail. The role of knowledge management tools, newsletters, and discussion groups as channels for disseminating information was found to be significant.

The reasons for selecting e-mail in preference to other communication media are mainly the document management capabilities of this technology and the communication options it offers. Other reasons are the variety of content options and editing tools offered by e-mail, and the immediacy of e-mail communication. Oral channels – telephone conversations and face-to-face meetings – are delivering urgent information, and to convey sensitive information.

Hierarchical relationships were not found to have a significant effect on the choice of a communication mode. it was found that e-mail and face-to-face meeting are the two most used channels for communication information to peers and subordinates as well as to individuals higher in the organizational hierarchy. We suggest that this is largely due to the fact that e-mail greatly facilitates direct communication with individuals in senior positions.

Inter-functional relationships were not found to have a significant effect on the choice of a communication mode. We suggest that as e-mail has become accessible and easy to use, and as individuals have acquired experience and skill using it, preference for this communication channel has increased substantially by individuals in all functional groups. We also suggest that as individuals in all functions of the organization have increasingly been required to keep a record of their activities, so has e-mail, which offers advanced document management features, become the communication medium of choice.

It was found that information obtained from secondary sources or produced within the organization is delivered by e-mail, whereas information obtained from primary (human) sources is conveyed mainly in face-to-face or telephone conversations. The explanation we suggest is that the editing tools of e-mail which allow the delivery of information in a wide variety of formats make it suitable for dissemination the different types of information obtained from secondary sources. Information obtained from human sources is communicated mostly thought personal contacts without any record being made of it. This kind of information is therefore passed on to other individuals through oral communication channels.

We found that the message content does influence the choice of a communication mode. This influence is expressed mainly in the use of oral channels to deliver urgent, sensitive, or nonroutine information. E-mail is typically used for distributing information to a critical, confidential, most urgent, or personal – it would be communicated via oral channels only. It was found, however, that in most cases, oral interaction is used in addition to, not on place of delivery by e-mail.

Additional considerations in selecting a communication medium, which emerged from this study, are related to the personalities of the communication partners and the nature of the relationships between them. \it was found that personal relationships lead to a more informal and extensive information exchange, which takes place trough the channels proffered by the communicating persons.

Our research findings lend support to both information richness (Daft & Lengel, 1984, 1986; Lengel, 1983) and social influence theory (Fulk, Schmitz & Steinfield, 1990). Hence these finding support also the information richness theory and social influence theory are complementary explanations of media choice and behavior, as suggested by Webster and Trevino (1995).

We conclude that media selection in organizations is strongly influence by two factors: the remarkable advancement of information and communication technology, and the record-keeping requirements imposed on organizations in recent years.

We suggest that as e-mail technology offers a wide range of both communication and documentation capabilities, it has become the primary mode of communication in organizations. These two influencing factors have also outweighed any "richness" considerations in media selection. Moreover, the variety of features and capabilities of e-mail in itself lends it richness. Our findings support the assertion that current information and communication technology blurs the distinction between formal and informal modes of communication (for example, Liverouw and Finn, 1996).

it is concluded that information policy should be established in organizations and, what is just as important, it should be adhered to. This requires management involvement in that the policy must be enforced. Mechanisms and procedures should be designed to allow both types of communication:

information exchange via online networks, which is fully documented, and

informal, personal, face-to-face interactions.

It is also concluded that effort should be made by management to raise

awareness among employees of potential consequences of the misuse of the

organization's electronic mail system.

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