

Information Management in the Company's Information Space

Tomasz Lis, Czestochowa University of Technology, Poland
Paula Bajdor, Czestochowa University of Technology, Poland
Aleksandra Ptak, Czestochowa University of Technology, Poland
Iwetta Budzik-Nowodzińska, Czestochowa University of Technology, Poland

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Abstract

In the modern companies activities, information plays a quite important role. Without adequate information and without an effective management system, it is not possible to achieve success on the current market. This is particularly related to dynamic character of present markets. It should be considered whether this dynamism and globalization as well, are not the result of blurring borders at the level of the information sphere of human functioning. In a such reality, it seems reasonable that the company management relays on information management in the real world (within the company), but especially in the information space (without time and space limitation).

The main purpose of the article is the analysis of the benefits, caused by active management in the information space. Another purpose is the analysis of the conditions, which a company must fulfill, in order to make this kind of management possible, together with achievement of expected results. In the research part of the article, the results of research, directly and indirectly related to the functioning of current man and enterprises in the information world, will be used. And the main emphasis will be placed on the functioning in the virtual space, in particular in the "world of the Internet" as a place of diffusion of information.

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Introduction

Information and, above all, the ability of its practical use is a very important success factor at the moment. Every human action is a result of information. They decide to take, change or abandon these activities. The determinant is to achieve the desired results, at present and in the future as well. In this regard, human activity should be considered as a conscious management based on the information. However a human functioning is not only about obtaining information and making decisions based on them. A phenomenon of generating information constantly accompany to that. Every human activity is also a source of information. And it has the conscious and unconscious nature. To consider the fact of management based on the information, it is clear that generated at any time information have an impact on individuals in connection with the source. Therefore information influence their decisions and actions. This creates a „cause-effect” loop, which is based on the information. With the passage of time, expands the spatial extent of the phenomenon in natural way takes place.

A number of individuals whose activity is derived from the information source increases. At the same time, each of them, generates another: information and action. The only condition for the phenomenon's occurrence is the ability to migrate the information generated from the information space to the units being outside for the source. Information space of the unit is holding immaterial dimension of the area in which it operates, and which contains all the information which influence on its life. Both generated and incoming. In this perspective, human activity is no longer limited only to the management based on information, but also through information. Implementation targets and achieving results are dependent on the information obtained and simultaneously generated. Strictly speaking skills of optimal use of incoming information and possibly up to a conscious process of generating.

Management and information

Information are commonly associated with the management process. Without having the right information, we cannot identify, pursue and implement the objectives that have led to a market success. This relationship is particularly actual at the moment, at a time: when dynamism became one of the most important markets description, when talking about the information age, and society is being called as information society. With the growing importance of information, resulting, among others, from the development of information technology, a necessity of information management has raised.

Among the other reasons are: increasing the complexity of the conditions in which businesses operate, the rise and demand for knowledge, the impact of information on the creation of value, the information as a factor in the competitive struggle. We can assume that all these factors are derived from the development of information technology. It influenced: to increase the technical feasibility of collecting the storage, transfer and analyze information. If accept the statement: man is what, how and where it does, and at the same time that all this is information, we note that the development of information technology has allowed it to fulfill the eternal thirst. Currently, in the information dimension is possible: being in every corner of the Earth, being in many places at the same time. And time and place limiting factors do not valid.

Information management is defined as "a set of principles, techniques, systems and devices that define the information and communication structure of the company, which is the basis for decision-making processes". In the area of interest, management refers to activities performed in the company, including those arising from the principles of the functioning of the market - cooperation with external units. The aim is to streamline operations, aimed at getting the intended competitive position. In this regard, information management can be described as a set of actions associated with the acquisition, collection, processing, analysis and practical use of the information.

Information management plays so called a complementary role in relation to business management. It has allowed to achieve its short-, medium- and long-periodic targets. This results in features, which should have information. They must be: timely, valuable, unique, verifiable, accurate, complete, etc. Among the stated features, the attention to the verifiability and unique information pays attention. Confirming information extends the decision-making process. It seems that in a dynamic market is a limiting factor for gaining competitive advantage. This is because the rapid spread of information. In such a reality a feature unique gains the importance, and thus the search for relevant information, but not confirmed (weak signals). Management with the use of weak signals can take action before others, but also increases the risk. The factor that allows them to reduce is the skillful and active functioning in the world of information. It must be carried out by staff who understand the realities of the market. Employees who are in relation to the subject position, which co-create and for which they are responsible, are aware of the importance of information that constantly generate. They have to provide information, the role of which is the optimal functioning of enterprises and the development of positive information about it and its range beyond the borders of that separate company. By shaping positive information we mean actions aimed at obtaining all the possible positive effects stemming from the impact of information on participants in the information space. This includes: adoption, acceptance and scale of absorption (sales) offer, the introduction of innovative solutions, optimizing the operation, as soon as possible adjust to changing market realities, including the expectations and requirements of customers, establishing cooperation with the best partners, to build networks. The aim is to manage and based on the information.

J. Kisielnicki writing about the role of information, refers to the French proverb, "there is nothing without matter, without energy everything is motionless, there is chaos without information". Attention is on three factors: matter, energy and information. Analyzing the contemporary realities can come to the conclusion that information is not only one of the three, but in fact two or even three of them. Matter is part of the structure. It can be considered as material or material in the context of the physical but also the information. According to the dictionary PWN is this:

- physical objects knowable through the senses or existing objectively, ie. Independent of its cognition,
- concept in the field of ontology (metaphysics) indicating the type of entity existing only or one of the existing ones,
- material, topic, content, which can be granted various forms,

- thing, matter, about which one thinks, says or writes.

Information as matter and energy are inextricably linked to the dynamism of markets. M. Rafało based on the work of a number of scientists, presented the summary of the characteristics of a dynamic environment. Their analysis in the context of information, especially the information space of human life is included in the table below.

Table 1. The properties of dynamic environment and human's information space

The properties	Human's life information space
The boundaries of the organization are variable. There are new distribution channels and contact with customers and suppliers	With the development of technology, including information technology and particularly the Internet have blurred limitations of time and space. In the dimension of the information anyone can be anywhere in the world. It may also participate in the work of teams of any, variable structure. Criteria for the selection of their members are related to the needs of the initiator (eg. Company) and the characteristics of the participant information space (information available, the ability to produce information, access to information, the ability to spread information, the impact of information). No limitations of time and space made it became a necessity to constantly seek opportunities to shape new distribution channels and customer contact. The customer on the one hand remained recipient company's offer, but on the other has become the recipient and the provider of the information. These channels arise from the needs.
Uncertainty decision. It is difficult to determine the consequences of actions, and possible options for decision-making.	Integration of the information units (globally) as mentioned resulted in the dimension of the information galling limitations of time and space. In fact, such information each time causing certain actions of their customers spread almost instantly. At the same time the competitive struggle time to act (decision) is a key success factor. Therefore, the one who first take the right decisions is more likely to gain an advantage. At the same time accompanied by an increase in risk associated with a limited degree of verifiability of information and the number of possible courses of action to take. The amount of information appearing almost at the same moment of time makes it difficult to identify variants of possible decisions and their consequences.
High turnover of companies in the market.	The amount of information is constantly emerging, virtually unlimited flexibility of organizational structures, offer the possibility of migration in terms of market activity. The requirement is the ability to: operate effectively in the information space, the practical use of information, optimum adaptation to the realities. Companies change their business profiles, to the extent that they want, or that requires them to reality. From the

	partially complete. Determinant are: an opportunity or a threat, the possibility of effects.
There are new customer segments and new customer needs	Unrestricted and self-perpetuating mechanism: the generation, influence, calling the information dimension is the direct cause of the dynamism of the market. Participants in the information space is constantly changing. This happens both in real space and information. This is due to information, and generates information will always affect the other. This applies to all participants in the information space: customers and suppliers.
Changing role of information systems - greater interaction with the environment.	Integration of the information units affected the dynamism of markets. Information vital in the fight against the competitive functioning in the new reality. It took on a special meaning the ability of their collection, analysis and use in the shortest possible time from generating. Do not be hindered only to adapt to the changing environment - obtaining information. It is necessary to raise the process of providing information accompanied to the environment. The aim is to influence the various market participants so as to induce in them certain actions. Because a key element in the management information (including information space) is information technology that is required of the greater efficiency and effectiveness in the functioning of the information space.
Organizations are looking for innovation	Dynamism of markets makes enterprises must on the one hand constantly adapt to change - by making changes to the other in order to obtain a sustainable competitive advantage to introduce new solutions. Innovation must relate to every aspect of the operation. This can be achieved through: the constant search for information, providing information cause, engaging disposers of information, engaging sources of information affecting the other participants in the information space. Indicated by M. Rafalo creativity consists of two factors: the production and innovation, as well as providing (innovation as the information) in order to shape information in space. It is not enough to innovate, it must be in the form of information as soon as possible and as far as possible to spread in space. The aim is also increased by this process to identify and introduce new innovations and changes. Innovation and change are driving innovation and change
There are new organizational structures, which are informative solutions	The value of the participants information space in dynamic markets makes it one of the most important factors in the competitive struggle is the flexibility of the structures. Understood not as the ability to fit within the physical boundaries of the enterprise, but as the ability to engage the participants in the information space, which are optimal with respect to the objectives pursued. The target structure according to the authors is the only solution for the operation in a dynamic environment. The traditional

	organizational structure is part of a kind of initiation. Its task is to ensure the ability to function in the information space. Because the structure is deliberate in its information space is based on the linkage information.
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As B. Stefanowicz points out "in the specialist literature you can meet with the opinion that the information is used mainly for human decision-making to economic activities". Can be said that the information was an essential element of management, allowed for the realization of its basic functions: planning, decision-making, organizing, leadership, control. Information management also plays a supporting role. There is no doubt that today in a time characterized by high dynamism, information remains a key factor in management. So still it plays a supporting role.

The information are collected, stored, processed and used. It is pointed out in this regard, of particular importance to observe the surroundings. Analyzing involvement in the process of seeking and obtaining important information, should be noted that about 12% of small and medium-sized companies and 21.4% of large doing it systematically. Approximately 87% of SMEs and 77.7% of large doing it as needed. Among the information sought and used by small and medium-sized companies shows that: 33.2% sought and used the information about new products and technologies, 17.4% limited only to seek up 49.4% not looking for and did not use; 25.4% sought and used the economic information, 23.3% limited only to seek up 51.3% not looking for and did not use; 24.4% sought and used the information about new customers, 23.6% limited only to seek, 52% are not looking for and did not use; changes in law, respectively, 30.5% sought and benefited, 16.1% sought, 53.3% are not looking for and did not use; on the actions of competitors, respectively, 23.6% sought and benefited, 20.6% sought, 55.7% are not looking for and did not use; changes in the market of suppliers and subcontractors, respectively, 26.9% sought and used the, 15.6% sought, 57.5% are not looking for and did not use; about the international environment of, respectively, 7.5% sought and used the, 6.8% sought, 85.7% are not looking for and did not use. The results indicate that companies still do not understand the role, which information exploration, acquisition and use play. It follows from this lack of understanding of the realities of today's markets. This happens at a time when information is to be or not to be, when as a result of the development of information technology has created a new information space operations. On the basis of those research results, we should ask how the information support the management, since the majority of them do not seek and do not use them?

Analyzing quoted in Table 1, features of dynamic environment with respect to the information space of human life, should be stated that the exploration and use of information is not enough to achieve real market success. Because: the boundaries of the organization are variable, there are organizational structures based on relationships of information, there is a need for development of new distribution channels and customer contact, increased the risk of the operation, there is difficulty in selecting specific courses of action and forecasting the impact of these choices, the company dynamically change their activity market, changing expectations of market participants, and thus it is necessary permanently to their matching, and even overtaking is needed integration and greater interaction systems with other participants in the information space, it is necessary permanent changes and innovations, it is necessary to conduct active management of the information space-

based information management. Management realizes all the classically accepted functions, involving the management of the use of information and using the information.

Information space in human's life and enterprise's functioning

Awareness of the need for active management in the information space, as well as the existence of the same information, require to present the results of several studies on the significance of information in human life and the functioning of the information-driven world.

Between 2005 and 2012 there has been a 18-fold increase in terms of visit and use the content of websites, including those localized in countries other than the user (web traffic with cross-border). From 2008 until 2012 there was a 500% increase in the number of hours spent by Internet users on Skype. 90% of retailers operating on EBay sells goods to other countries, while the sales recorded less than 25% of retailers operating in the traditional manner (not electronic). In 2005, sales of goods electronically was at 3% of the total trade in goods. In 2013 this share was already 12.1%. In 2005, 3% of all international calls were carried by Skype. In 2013 this share was already 39%. In 2005, sales of services electronically was at 51% of the total services trade. In 2013 this share was 63%.

More than 3 billion of the more than 7 billion people living at present, being active users of the Internet (2015). In comparison to the previous year was an increase of 21%.

It is estimated that in the year 2020 compared to 2010 will be: decreasing importance of traditional forms of sales from 63% to 14%, increasing importance of electronic sales of 7% to 21%, increasing the impact of the Internet / mobile devices from 30% to 65%. According to the authors of the referred report, it will result from the fact that the transition to electronic sources of information as a factor in the purchasing decisions. The authors mention here: social media, compare pricing and quotes, aggregators offers, applications, locating products. As noted, today the consumption of taking purchase decisions: searching the offer, compare prices, exchange views with colleagues, identify promotional offers, "visit" shops, make payments using the tools of information technology. These operations take place at the level of information.

The study Global Trust In Advertising from 2015 analyzed source of information influencing the purchasing decisions of customers. It was found that 83% of respondents trust the information obtained from persons known to them (compared to 2013, a decrease of 1%), 66% to the opinion of consumers placed on the Internet (compared to 2013, a decrease of 2%). 66% to the information obtained, eg. From press articles (in comparison to 2013, a decrease of 1%), 70% to the information contained on the company's web site (compared to 2013 increased by 1%), 61% to the information obtained from sources sponsored by a specific brand (unchanged compared to 2013), 56% to the information obtained from emails delivered directly by suppliers (unchanged compared to 2013).

It should be noted that the position of: confidence in the information obtained from persons known to them (83%), likely refers to the knowledge entered and maintained in the information space, using the tools of information technology. Today, contacts are moving more and more from the physical dimension to information. Direct talks are replaced by contact with social networks, and giving the opportunity to applications and websites. The confirmation of the results of the research, according to which 42% of active users use the Internet to communicate with friends and family.

Interesting results of the research can be found on the Consumer Barometer (2015). By studying the way in which potential customers seeking information about products and/or sales offers, it was found that 42% (Poland) to 36% (Japan) of them took particular note of their own previous experience, 12% (Poland), 8% (Japan) - conversations and discussions with other people, 17% (Poland), 21% (Japan) - generally searching for information before buying, 12% (Poland and Japan) through advertising, other 11% (Poland) and 19% (Japan). By studying the way in which potential customers before buying acquire knowledge about the product were found: 55% (Poland), 59% (Japan) - knowledge is acquired online, 37% (Poland), 39% (Japan) - knowledge acquired in stores and general places selling, 4% (Poland), 1% (Japan) - by phone: calls and text messages, 3% (Poland), 1% (Japan) - in other ways. When exploring ways of communication between potential customers acquiring knowledge about the product were found: 80% (Poland), 72% (Japan) - interviews, 8% (Poland), 9% (Japan) - through social media, 5% (Poland), 10% (Japan) via e-mail, 6% (Poland), 5% (Japan) - in other ways. Explores different ways of advertising as a source of information about the product were found: 25% (Poland), 46% (Japan) - online advertising, 30% (Poland), 22% (Japan) - TV commercial, 2% (Poland), 1% (Japan) - radio advertising, 9% (Poland), 2% (Japan) - poster advertising, 11% (Poland), 6% (Japan) - advertising in newspapers and magazines, 5% (Poland), 4% (Japan) - advertising sent via e-mail, 2% (Poland and Japan) - a traditional post office, 9% (Poland), 11% (Japan) - at the point of sale, 3% (Poland), 4% (Japan) - in other ways. In examining the sources of information offline in making purchase decisions was found: 20% (Poland), 10% (Japan) - conversations with family, friends, friends, 6% (Poland), 5% (Japan) - TV, 3% (Poland) 1% (Japan) - radio, 8% (Poland), 7% (Japan) - printed materials, 8% (Poland), 4% (Japan) - meeting with the dealer and/or consultant, 3% (Poland), 1% (Japan) - posters, 16% (Poland), 14% (Japan) - retail stores, 41% (Poland), 35% (Japan) - shops offering for sale goods of different brands, 25% (Poland) 13% (Japan) - conversations and discussions with other people. In examining the sources of information online in the process of making purchase decisions it was found: 26% (Poland), 30% (Japan) - corporate websites, 20% (Poland), 22% (Japan) - sellers, 56% (Poland), 49% (Japan) - search engines, 5% (Poland), 2% (Japan) - social media, 11% (Poland), 5% (Japan) - pages with video materials, 3% (Poland), 1% (Japan) - profiles corporate social media, 8% (Poland), 4% (Japan) - discussion groups, forums, blogs, 5% (Poland), 1% (Japan) - auction sites, 17% (Poland), 14% (Japan) - compare prices, 3% (Poland), 2% (Japan) - the magazine online, 5% (Poland), 3% (Japan) - offers and information sent by email, 4% (Poland and Japan) - other.

Conclusion

We live in an era in which as never before information decide about the human's behavior and all forms of his activity. The speed of life as a feature of contemporary reality, is nothing but a reference to the dynamics in terms of the spread and impact of information. The information are the result and a source of human's behavior. Thus, any activity which is derived from information produces information through the further steps. This process takes the form of a loop of cause and effect. Rarely it occurs at the same time that a single information induced reactions, mostly they are subject to a number of information. This is true even if the company reacts to a weak signal. It is the key information in terms of strategic, yet difficult, or even impossible to confirm. It gives the opportunity to respond to upcoming events market before the competition. In this regard, it may be single piece of information. At the same time it must be noted that its practical use is indeed associated with a number of other information. They are using the internal nature: experience, knowledge, skills, available resources and external information: indirect complementary information. Similarly, the information generated by actions. Source can be convinced that it provides a single and deliberate information. In reality, however, it provides a number of accompanying information, also affecting the operations environment. They can at the same time: strengthen, neutralize or negate the intended information.

Dynamism functioning is a direct result of technological development having a direct and indirect impact on the spread of the information. In this regard, the most important is the development of information and communication technology, particularly the Internet. This has led to a blurring of boundaries currently contractually limiting a person's life. There has been a blurring of the limitations of time and space. Each person in terms of the information may be anywhere in the world at any time. The condition is access to networks which provide communication.

In such a reality, the treatment of information only as an object of management should be regarded as an error. It is necessary to conduct active management in the information space, which is an area in which information is "live". Management, which is based on access to, and to the fullest extent conscious delivery, controlling, planning information. Globalization, dynamism, resulting from the separation of the living space in physical terms, the information space require active in the operation. Only in this way we can: keep up with the changes, seize opportunities and prepare for the threat and what's important to do it in front of others. It is necessary at the awareness and understanding of the process based on the following principles: every action is a cause of generating a series of information inducing effects, each action is carried out on the basis of information, each generated information, which is beyond consciousness and left a news, causes unpredictable and being without the influence of the effects of, any information (with a range of information relating to the company and its activities) comes to and located in the space already has an impact on the competitive position of the company. It is therefore necessary: conscious generation, exploration, acquisition, strengthening the positive, eliminating negative correction of false, use of - information. Functioning in space is as dynamic as rapidly spread information. Each even a slight delay in response, each of which is beyond the control of the impact of information act, may be the cause disproportionate as to the duration, nature and scope of activities and events effects.

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Contact email: tomlis1@wp.pl