

Information systems – tool for changing our future

Informační systémy – nástroj pro dosažení změn

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Abstract: The article deals with the usage of the information systems and expansion of the portals. In the part “results”, there is elaborated a questionnaire applied on the agrarian sector. Today, the approach to the development of the information systems is oriented to the implementation of the portal solutions, which enables us a web access to the information and applications with an effective possibility of management and administration. Here, we are able to find typical user groups with quite specific information needs, who would find the specialized web portal very useful. This is because such kind of portal could offer them “everything at once and at one place”, it means all of their needs would be satisfied immediately and users do not have to waste time with an information search at other places.

Key words: information technologies, communication technologies, internet, information systems, portals

Abstrakt: Příspěvek zpracovává využití informačních systémů a rozšiřování portálů. Portály jsou v současné době rozšiřujícím se řešením přístupu k informačním systémům. V dotazníkovém šetření, prováděné v agrárním sektoru, respondenti odpovídali na dotazy vztahující se k využití informačních systémů a informačních a komunikačních technologií. Na základě provedeného šetření nejvíce respondentů využívá informační a komunikační technologie pro operativní řízení. Dále bylo sledováno využití internetu – internet v podnicích agrárního sektoru se využívá zejména pro komunikaci. Informační a komunikační technologie v agrárním sektoru se stávají jedním z důležitých faktorů pro získávání podnikových zdrojů pozitivně ovlivňujících zvyšování konkurenceschopnosti podniků.

Klíčová slova: informační technologie, komunikační technologie, internet, informační systémy, portály

Everyday, we are surrounded with information in every aspect of human work. It is known, that dealing in information brings to a company often a higher profit than the usual productive activity. Also the number of people who gather or provide information is growing faster than in any other business type and governments of developed countries spend huge money on building information systems and services.

The term “information society” is usually understood as a society where life’s quality, social and economical changes depend on information and its handling. In this kind of society, the living standard, typical work methods and vacation standards, same as educational systems and market conditions are very influenced by the progress in usage of information and knowledge. This is documented by the growing section of informative products and services on the base of electronic communication.

Ducker declares it as knowledge society, Z. Brzezinski as technocratic society; Robert Reich speaks of new quality of society and connects it with process-

ing of symbols. All of them point out the meaning of information and knowledge.

The most common factor for today’s existing definitions of informative society is that there is emphasized the very meaning of information as a key source for the society development. It means that the information together with other three basic economic sources (labor, land, capital) underlie further society development. At the same time, this fourth source becomes significantly considerable.

The foundation and character of information society is often not exactly understood and is often exchanged for an expansion of modern information technologies – computers, electronic communication devices etc. But information society requires more than that – meaningful changes in behavior and thinking of people, in our case managers and businessman. The only disadvantage could be producing information overload, uncooperativeness and distrust between managers (Papík et al. 1998).

The key carrier of innovative changes during creation of informative society is information itself.

Understanding information and development of abilities to work with it are the key requirements of today's managers and businessmen.

AIM AND METHODOLOGY

The goal of this work is to characterize information and communication technologies used in businesses. Investigation itself took place in the agrarian sector businesses and was aimed at usage of information and communication technologies in the chosen sample of businesses.

Information systems

The first-rate information system is not only a luxury for top classes businesses, but it is one of the most effective tools for business management on the strategic, tactical and operative level. By the help of IS/IT, we are able to reach better evaluation of business development possibilities, faster and more precise evaluation of business goals fulfillment, easier realization of business processes (Kučera, Látečková 1996).

If companies want to be able to reach a good level of competition, they have to own such tool with which they can alter their productive processes and information system at leisure, so it always meets its need for exact time scheduling (Král 1998).

Mostly vulnerable to the inelasticity of information systems are businesses operating in the sphere of heavy competition. It means especially middle sized and expanding businesses or companies with the unusual character of business (Figure 1).

Portals

One of the preferred possibilities of the contemporary information system creation is implementation of portal solutions as a complex solution, which combines personalized web access to information and

applications with effective possibilities of management and administration. In this way, the portal is becoming a window to the information system and organization processes. From portal solution, the companies expect integration of other subsystems, improvement in access to information, cost reduction, knowledge sharing and improvement of processes and less "paperwork" (Papík et al. 1998).

Presently, there are two basic types of portals existing:

Corporate portal – the purpose is to provide users with access to company's databases and applications (user is employee, partner, supplier, consumer). Corporate portals are according to provided information divided to the Application Corporate Portal and Information Corporate Portal.

Regular Visitor Portal – the purpose is to attract and keep attention of the visitor. These portals enable visitor to take advantage of its added values – ex. usage of SMS, e-mail. An example of this kind of portal can be the Agris.

A bigger importance is gained by Vertical portals in the context with the Extranet solution. The purpose of creating system in this fashion is to interconnect sellers and buyers in exactly defined market segment. Vertical portal then unifies complex packages of products from different suppliers of the given sector, including the providing solutions of distribution channels.

Portal solutions are beginning to be an integral part of business information systems. Presently, they are understood as a contact during the access to information, serve as a support during the decision making and like communication tool, because it combine basic communication services.

RESULTS

(what is utilization of information and communication technology in agrarian sector)

In the survey "utilization of information and communication technologies in agrarian sector" the informants were asked questions about the expansion

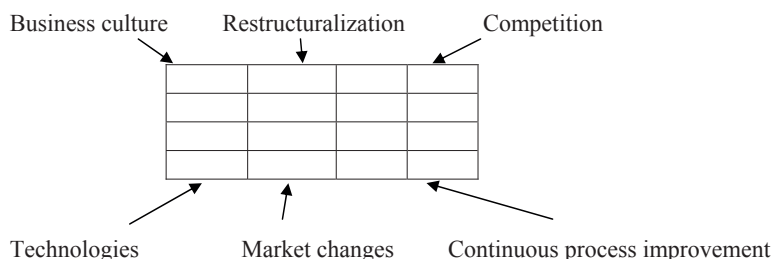


Figure 1. Influence impact on modularly built information system

Table 1. Utilization of IT in management

Level of management	1	2	3	4	5
Operative	68.75	0.0	12.5	12.5	6.25
Tactical	22.2	22.2	11.1	44.5	0.0
Strategic	33.3	13.3	26.7	26.7	0.0

Table 2. Utilization of Internet (%)

e-mail	Gaining of information	Advertisement and promotion	Communication with		Direct	
			suppliers	banks	sale	purchase
93.75	93.75	81.25	75	56.25	12.5	6.25

and utilization of these technologies for improving the quality of management. The help of question-forms made the survey. Their return-rate was 32%. Altogether there were processed 128 question-forms.

Informants were replying to the question "what is the utilization of information and communication technology in each level of management – operative, tactical and strategic". On every level of management, they had to elect from the scale 1–5 (1 substantial improvement, 5 irrelevant improvements) (Table 1).

From the finished survey, it is evident, that the biggest utilization of information and communication technologies in agrarian sector in the purpose of gaining the information is on the operative level of management. It is interesting, that IT is more used at the strategic level, than on the tactical one. On the tactical level of management, the top executives make little account in usage of these technologies.

How is the Internet used in the agrarian sector?

Presently, the Internet in the investigated sample is already used by 93.75% of informants. According to the gained replies, the internet is a great source of information with different quality and it is a very suitable environment for communication. For obtaining information and common communication, Internet is used almost in 94% of companies (Table 2).

The companies start to use Internet also for other activities:

- Propagation and advertisement – today, most of the companies have its own www presentation and many companies use advertising on the Internet.
- Communication – most of the banks in the Czech Republic enable communication with companies through web-based applications. More than 50% of companies from agrarian sector already use

this type of communication with banks and also through the Internet, they communicate with their suppliers.

- Direct sale and purchase – in the meantime, the Internet reached the smallest usage in direct purchase. The companies offer direct sale on Internet, but themselves, they do not use Internet for purchasing too much.

What is the usage of Internet for the presentation itself

Table 3. www presentations (%)

Own www	Operator www	Do not have www
43.7	31.3	25.0

From the above table, we can see, that only one quarter of users still do not have www pages created. 75% of users have them, but again, one quarter does not take care of them. So, we can see that we are not always able to obtain up-to-date information from Internet, so users are obliged to gain information from more than one source.

CONCLUSION

Information and communication technologies are becoming one of very important factors in obtaining business sources and they affect the increase of company's competitive advantage in the positive way.

In the observed sample, the Internet is used mainly for communication with business partners and for information retrieval and is minimally used for Internet

advertisement. Most of the companies have its own www presentation on the Internet, but these are only static pages and often they are not actual. As a benefit from the expansion of ICT, the companies observe lessening of office work (paper handling) and better reactions on a new change. From the survey's evaluation, it is evident, that most of the companies already use information systems and portals to increase the company's competitive advantage.

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