Mobil Digital Management for SME's

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Abstract. *The article presents the company management problems operating into a global environment, on a global market, digital management prospects and a concept concerning mobile digital management that is defined by the author and whose technological basis is the Internet, the mobile network technology and a mobile devices class which are considered to become a fundamental platform for the future applications.*

Key words: business process; business rules; mobil digital management; mobile devices; wireless network.

JEL Codes: D83, M15.
REL Codes: 5I, 14B, 14K.

In order to fulfill the Lisboa strategy, as the European Union economy to become one of the most competitive economies after 2010 year, an unitary IT&C infrastructure has to be provided for all the member countries, in order to capitalize on the advantages of a single market, governed by prices, quality of products and services or the connection with unknown partners under security conditions.

The states differentiation as regards eBusiness level is based on broadband Internet penetration. In United States of America, the broadband penetrating degree was of 87.49% in January 2008, in Holland[1] of 33%, in Denmark of 31.4%, in Finland of 28.1%, in Sweden of 27.4% and in United Kingdom of 23.1% and in Romania of 7.9%.

Among the first ten countries with the highest yearly growth rate as regards broadband Internet subscribers, we find also Romania, witch for 2007 year had a growth[2] of 104.52%.

The future of digital economy consists in hardware and software innovations for mobile devices and wireless networks.

The information technology investment[3] for 2010 year is expected to have a growth of 9.5% yearly.

The number of GSM broadband "wireless" networks[4] includes over 40 million subscribers with a forecast of 4 million new users till the end of this year, and the broadband "wireless" networks with High Speed Packet Access[5] dispose of over 740 types of mobile devices, PDA, intelligent telephones, notebooks or monitoring devices, with a high diversification and expansion.

This concept is substantiated on the idea that business rules are implemented as standards (Fugure R 1) into databases, and their execution and control are achieved automatically, according to several procedures, the key factor being the human one who makes the decisions on the business rules to be used, at a certain moment, for the notified business processes.

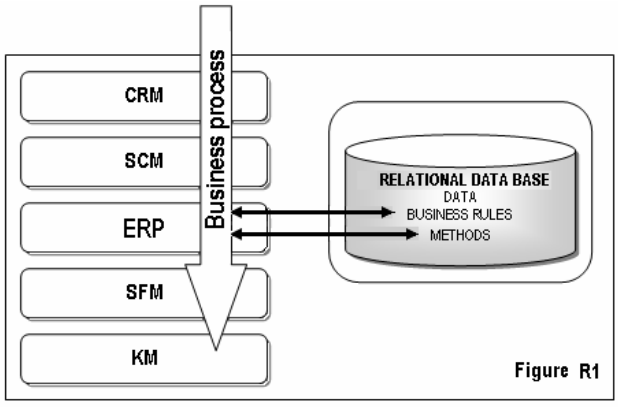

Figure R1

The business processes and rules often transcend the systems, subsystems and the applications and the managerial control is achieved especially on the business process level and not on the subsystems level.

The business process being considered as receipts to achieving a commercial outcome, receipts with business rules stored in databases, these can be modified, changed and aggregated, according to the

company objectives and can be materialized into business models.

Many companies, especially small and medium ones, have refused to invest in technology because of the high costs, the low profit, and the technology complexity and for many other points of view.

The responsibility and the control represent a challenge, because very often these are assigned to technology and not to persons who control it, and any manager has to keep in mind this aspect, if he wants to implement the technology into a real environment.

We define the mobile digital management *through partially or totally achieving of at least one of the management functions, forecasting-planning, organization, decision-making and command, coordination, motivation, evaluation and control, by using the wireless network technology and mobile devices (PDA, intelligent phones, iPhone, GPS devices or solid hard notebooks).*

The mobile digital management is suited for two of the management functions – coordination, evaluation and control – which represent current problems of the executive managers and usually requires notifications and fast decisions.

These two functions are usually fulfilled through compartment reports covering the tolerance limits of the measured parameters.

For the parameters outside the feasible tolerance limits, the notifications to managers are done automatically through mobile devices.

The notifications are done both for the managers who are responsible for the parameters outside the tolerance limits and for the upper hierarchical level, where an evaluation of the parameters current value evolution and, eventually, an evaluation of the measures to getting the respective parameter into the tolerable limits are transmitted.

The idea to supply managers with very flexible organizing structures, solutions to fulfilling processes or parts of the management functions using mobile devices and technologies, where ever more useful applications to be integrated on, has an important economic justification.

It is a new concept for the decision-making process (Figure R2) and it refers to manager's automatic notification with right information for substantiating the decisions into a certain time interval, regardless his location, by using mobile devices facilities, iPhone, PDA, intelligent phones, "solid state" disk notebooks or complex GPS devices.

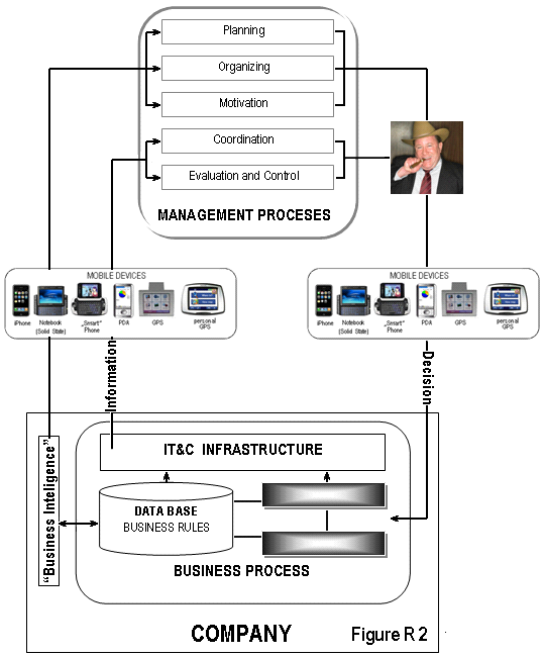

Figure R 2

The collection of information has not to be a routine, but it has to be information related to his attributions, strictly referring to the values of the parameters outside the feasible tolerance limits and which require immediate decisions for not affecting negatively the parameters of the working program, with financial or contractual implications.

Data transmission and decision reception must be protected (Figure R 3) through solutions and encryptations. From the company system, the encryptation and notification of the parameters outside the tolerance limits and which require decisions are automatically done with an encryptation key established by the manager, and the manager encryptates the notified message and encryptates his decision with a symmetrical encryptation key, stored on a memory stick used only for decryptation of messages.

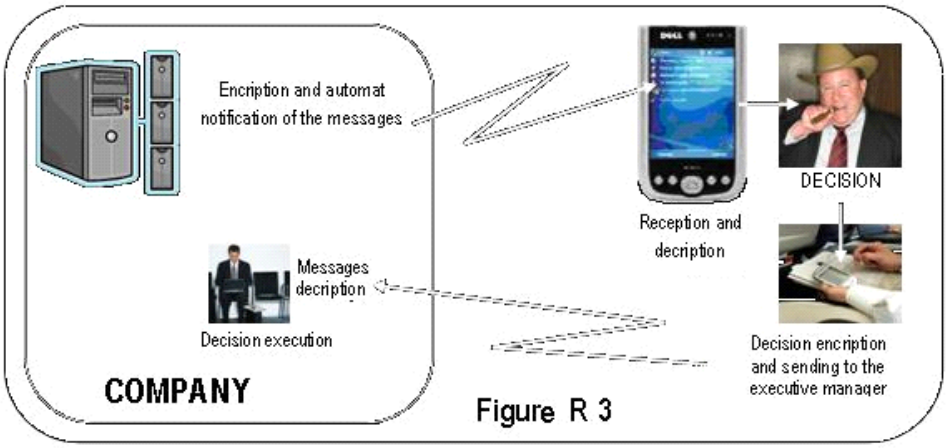

Figure R 3

The encryptation keys can be daily changed or according to manager's own desire, and the key length is evaluated according to the transmitted or received information lifetime. Such a solution is feasible and at the same time useful on the mobile intelligent devices.

The construction and tourism sector, according to the area of geographical, global, regional or local distribution, presents certain similar particularities, of interest for a *mobile digital management*.

Most companies are small and medium enterprises and it is difficult to suppose that these companies will invest important amount of money in IT&C, by taking into account the fact that the downstream necessary investments for maintenance or personnel is an immobilization of related resources, heavily supported by costs.

The small and medium enterprises are the key actors for transforming the European Union economy into the most modern economy, due to their unique capacity of implementing and adjusting technologies, innovation being a basic element of their strategy.

Also in Romania, small and medium enterprises are the main factor of economic growth and till 2013 year, through running the European financing programs on structural funds, they will get a weight of 80% of the GNP and 75% of providing new working places.

This is one of the reasons why the *mobile digital management concept* aims at the construction and tourism sectors.

A solution of mobile digital management is suggested, which to include the company managerial structure on management levels, management functions, managerial activities, activity efficiency parameters, parameter tolerance limits, activity responding time and a colors code for the emergency of solving the decision-making notifications.

The Web presence of companies requires from managers a fundamental behavioral change, because the rigid and hierarchical structures became out-of-date and the management information is already supplied and received through present and future technological solutions.

The companies will be in a creative challenge in order to develop their vertical structures or to expand the horizontal structures.

We think that it is possible to take place a change as regards the network roles, namely, the programs to become models and life to become a simulation.

This fact will have a major impact upon the training and education processes, as the educational structures of today are insufficiently synchronized with the technological evolution.

Information is available on network, and education should cultivate to students and pupils, knowledge to stimulating innovation and creativity.

Business needs skilled workers, the on-going education being an already assumed life problem.

The global network became a virtual market for the exchange of "products" and services for the training and educational process.

It is a world of networks, where the software solutions allow co-operation among entities and persons spread all over the world, in order to achieve products and services.

There is a profitableness point, similar to a critical mass, that provide the individuals or companies qualifications, in order to get a benefit from the advantages of the new technological platforms, which will connect, in the near future, over 3 milliard persons, in what we call the new economy.

A modern management for the companies working into a compressed world, supposes to disengage the manager from the routine problems pro the innovation ones, remote control, minimum elastic hierarchical structures, to exploiting the facilities supplied by the company navigation into the networks world and to creating innovative solutions for the specific demands of their customers.

In today and tomorrow globalized world, the small and medium companies become worthful partners and competitors for any other small or big partner or competitor.

Romania disposes of a modern legislation, of institutions which to stimulate and to manage the development of IT&C components, it develops its broadband networks and has national programs for introducing the information technology in schools.

We mention as weak points the investments[6], still very low (2.1% of the GNP in 2007 year with an increasing trend) as against the developed European countries, the slower adoption of the pre-university and university education to the newest technologies, with a number of 10.3 IT&C graduates per thousand of inhabitants[7] (much under Ireland, France or Great Britain) and with an Internet connecting mean[8] of 22%, being classified in the European Union hierarchy penultimate place.

The European Union considers small and medium enterprises the engine of the member states economies, as the most dynamic and innovative components which deserve to be supported and developed.

Most companies appraise[9] the IT&C positive impact upon their activity and consider that also for the future, their companies will be positively affected by IT&C, through introducing new processes and innovative solutions[10] .

http://www.ebusiness-watch.org/
(Mai 2008)

Notes

[1] See www.ectaportal.com (August 2008)

[2] See www.point-topic.com(August 2008)

[3] See http://ce.tekrati.com/(May 2008)

[4] See www.internetworldstat.com(May 2008)

[5] According to HSPA (High Speed Packet Access, with a speed of 1 Mbit&sec)

[6] See http://epp.eurostat.ec.europa.eu/ (Iunie 2008)

[7] See http://epp.eurostat.ec.europa.eu/ (Iunie 2008)

[8] See http://epp.eurostat.ec.europa.eu/ (Iunie 2008)

[9] See http://www.ebusiness-watch.org/ (Mai 2008)

[10] See http://www.ebusiness-watch.org/ (Mai 2008)

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