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Accomplishments and perspectives of the informatization of the Romanian banking system in the context of Romania's integration in the EU

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The computer networks through their performances and advantages have represented and will still remain the main communication infrastructure for the informatics systems. Through their connectivity at a world level an informational medium with resources and services has been created, which permits people to get informed and work together in different domains of activity. This process has taken part in all the domains of activity, including the banking one. For the Romanian banking system, 2006 has been a year marked by the efforts of the modification and lineament of the banking legislation to the European standards from the perspective of the adherence and also by the informatization projects that have taken place throughout the banking system level.

1. General considerations

The continuous technologic development and the competition between the existing banking organizations and the new set up ones have influenced the diversification of banking products and services, which are now available through electronic way. All this forms the so-called **electronic banking** or **e-banking**. The fast development of the e-banking qualities has both benefits and risks due to the security of the data transfer networks. But banking risks exist through the definition of the institution itself or, through the nature of its specific activities, so that it is important that the risk due to e-banking is known, controlled and well managed, in the purpose of reducing it.

2. Electronic payment Systems

The developments in informatics and communication have allowed the appearance of electronic payment systems. The new technology was used firstly in the domain of interbanking funds transfer, then in electronic commerce transactions and in the domain of services through credit card payment, Internet and other technical payment services. These technical systems have allowed distance payment. Concerning the payment system, the pyramid scheme and the role of the central bank remain the same, but the circuits of the system suffer important changes. The national circuit connects and alginates to the international one under every aspect: operational, responsibilities, surveillance, and indemnification, juridical.

3. Reducing risks concerning IT projects accomplished in financial institutions

Although for the financial companies risk becomes an element that needs being kept under control in any circumstances, in the case of implementing some IT projects, the risk management becomes a key of success.

Risk can come from the direction of businesses, people, or IT elements. While some risk elements are obvious, others are more difficult to identify. Risk implies choices; assuming risks represents, in many cases, significant opportunities for organizations.

Risks can and are, in general, more significant in the last phases of a project. Still, the management of risk, the process of identifying risks, of analyzing and answering factors of stress, must begin even before the launching of a big IT project.

Organizations must admit that the management of risk is an iterative process that is why regular evaluations of the risk are needed. IDC considers that the causes of failing IT projects are not immediately obvious in most cases.

Still, there is no need to identify and rank risks if the organization doesn't manage to initiate a series of strategies for reducing risks. There are numerous strategies that can be applied, each risk category needing different strategies.

Organizations should take a series of measures at an organization level for improving the capacity of dealing with risk. Through others, IDC recommends that organizations should develop consciousness for management of risk between employees, examine and learn from past mistakes and make sure that role and responsibilities concerning dealing with risk are well defined. IDC analysts show, also, that a tight relationship with providers brings value to the projects and can minimize risks significantly.

4. Interoperability of the applications and Web services market

Interoperability of the applications is a must for the implemented solutions in financial institutions, being necessary for assuring the connectivity of the existing applications at the level of a financial institution and for interoperability with different systems of the partners.

According to IDC estimations the global market of Web services and of solutions dedicated to interoperability of applications has been appreciated at approximately 3,4 billion dollars. For the coming years an important evolution in this sector is estimated, Web services covering a higher request of integrating informatics systems. In this way, in the year 2008 the market of solutions based on Web services is estimated at approximately 11 billion dollars.

IDC predicts a consolidation of the market of solutions based on Web Services for the period 2004-2008. Defining some evolved standards, as well as accepting them by an even bigger number of companies will contribute to adopting this technology on a higher scale. Also, Gartner, in a recent study, has stated that architecture oriented on services will gain a special importance in the IT&C domain.

Taking in account the transfer on Web of relevant information for business, it is necessity to use methods which can permit the implementation of a good security service and can assure data confidentiality. For these reasons, IDC and Gartner consider that the accomplishment of comprehensive standards in the domain of Web services, now available in the testing phase, will permit encoding data transfers and usage of digital signatures. For the SOAP protocol extensions for attaching identification elements will be available, being assured an efficient control of the identity of users which make the connections. Standards for Web services are available for public testing.

An example of accomplishing the interoperability of informatics systems at a national level is the electronic system of payment designed by BNR. The modernization process of the national system of payment started in 1995 with the consolidation of BNR's capacity of implementing monetary policy, the modernization of the system of payment on paper and the approach to a society prevailing without cash.

Through the second part of the process, is followed the facility of economy's development through the growth of security and efficiency of the system of interbanking payment, passing to a society prevailing without cash and the establishment of a legal basis well-underlined for the payment and discounting system. The project is operable at the moment, being assured the interoperability at the level of informatics systems from different banking institutions.

5. Accomplishments and perspectives

Beginning with January 2007, the new System for Reporting Credit Institutions at National Bank of Romania SIRBNR was set up. This way, during a project that was started 2 years ago, there has been created a system according to reporting requests at the European Central Bank, requests from data and information beneficiaries from BNR and requests from reporting institutions, which will have direct access to primary reported indicators, but also to centralized situations and aggregated at the banking system's level.

At present, through SIRBNR is transmitted a number of 8 reports, the other reports being introduced gradually into the system, according to a plan settled by the Mixed Methodological Committee BNR-ARB. SIRBNR will function for a period of time together with the old reporting system.

Apart from the reports already planned to come into function through SIRBNR, any new request concerning introducing some indicators or new reports will be done only with the notice of the Mixed Methodological Committee, after a preliminary analyze of the requests, for avoiding the appearance of redundancy and parallelism.

At present, the implications of the implementation of Basel II Agreement of capital and of the application in perspective of international standards of financial reporting IFRS on the SIRBNR system, through adopting the reporting formats COREP and FINREP are analyzed.

During the year 2006, efforts for eliminating the last "on paper" components of the SEP have continued.

During last year, a study of quantity impact for determining the effect which the regulations that follow will have upon the regulated level of the necessity of proper funds of credit institutions has been done.

The application of International Financial Reporting Standards (IFRS), initially announced for 2006, will be introduced, according to the decision of Public Finances Minister and BNR, beginning with January 1 2008. It must be stressed that the application of IFRS produces changes in all sectors of activity of credit institutions, with implications upon informatics systems in what concerns processing transactions, accountability and reports' system. The application of IFRS implies a detailed process of training, process which credit institutions have already run. The banking system is ready to report according to these standards, being necessary though that the other economic agents to run this training process.

An older desideratum of banking community is the accomplishment of an on-line reporting system by the National Office of Preventing and Fighting Money Washing and eliminating daily reports on a magnetic support.

This goal was included in a larger project in 2005, of creating informatics infrastructure for collecting data from financial institutions and for dividing data between implied institutions. The solution promoted by banks for the accomplishment of an on-line reporting system was that of connecting by the National Office of Preventing and Fighting Money Washing to the interbanking network. It is expected that this system will become operational in the first half of this year, as a result of signing the protocol concerning the connection to the interbanking network by the by the National Office of Preventing and Fighting Money Washing and BNR.

SWIFT has started updating the infrastructure according to the second phase of migration to SWIFTNet, which will take place during 2007-2008. This consists in updating security mechanisms and instruments of administrating relations with corresponding banks for the SWIFTNet platform. This way, a unique model of security will be introduced for an access to all services of SWIFTNet based on public key infrastructure (PKI), assuring a better control of traffic and mechanisms against unsolicited traffic. Key elements of the migration are PKI, HSM and RMA. Training has started last year, there is a limit term of 31 October 2007 for Romania.

Conclusions

SEP's coming into function during year 2005, has lead to the acceleration of settlement of accounts and to the reduction of costs for funds transfer, has created the basis for diversification and improvement of payment services, has created the possibility of integrated processing of payments coming from initiator to a beneficiary and has generated a process of reform of payment systems of credit institutions, through the automation of payment processing. For this automation, the banking community has chosen a solution in two steps. In the first part, the physic exchange of debit payment instruments will be centralized at TransFonD, and settlement of accounts will be accomplished through SENT system, using the mechanism of direct interbanking debit and the formats of XML messages adapted for each payment instrument.

This solution was already accepted by the National Bank, which has elaborated a regulation, analyzed by the banking community. The project has as objectives the processing of all debit payment instruments with a high automation degree, the minimization of manufactured processing volume and the reduction of errors level, assurance of a high security level, through the use of digital signature and not least, the reduction of processing costs for debit instruments for banks and TransFonD.

For the second stage, the banking community will decide upon modifications of legislations and upon necessary investments so that the circuit and processing of debit instruments are made through digital images exchange.

Apart from the project concerning the automatic processing of debit payment instruments, foe the following period there are other SEP developments taken into account, as: the use of SWIFTNet services and network for SENT system, the implementation of a new help-desk application, the development of secondary market, through the creation of an electronic transfer platform, etc.

The use of SWIFTNet services and network for SENT system would permit recycling of the investment in SWIFTNet infrastructure through exchange of payment files of low value and can represent a substantial reduction of transfer costs for credit institutions, generated by the growth of the volume of messages transmitted through SWIFTNet, but also by the reduction of costs with the operation and upkeep of the infrastructure.

The year 2006 has also meant the set up of the project concerning the application of The New Agreement of Capital - Basel II, which sets the basis of new principles for risk management and causes the reconsideration of the whole philosophy concerning the capitalization of banks. During this project have been defined the national options concerning credit risks, for the standard approach and for that based on internal models of rating and legislation has been harmonized with the European one.

The projects from the banking system will continue with a series of aspects concerning the modernization of the Romanian banking system run with the support of the Convergence program, through the Special Projects Initiative – SPI, and also with a presentation of the Single Euro Payments Area – SEPA project.

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