THE SIGNIFICANCE OF THE INTERCONNECTEDNESS BETWEEN BANKERS AND IT EXPERTS: THE IMPORTANCE OF THE TWO-WAY COMMUNICATION

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Abstract:

The article is written for the individuals striving to work, or who have recently been employed by the financial sector, having a bachelor degree in economics, and eager for further professional development. The paper is the result of authors' many years' of experience working in the financial sector. The subject of the research are knowledge and skills which bankers should acquire in order to have better direct communication with colleagues who work in information technology (IT) divisions, and furthermore with other relevant stakeholders.

The key for good communication between bankers and IT experts is that bankers should know how to define precisely their request. It implies that they should be acquainted with the products banks offer, understand client's needs, and should be familiar with processes and procedures within banks, functionality of used software and the actual regulation. Thereby, it is important that all request proposals should be considered through the prism of balance sheet and income statement of the bank, in order to understand on time whether the change is necessity or just a matter of prestige in the market. The contemporary market conditions impose permanent need for monitoring innovations in the field of finance and technology in general, long-life learning process, in order to obtain competitiveness in the labour market.

Keywords:
banking, information technology, communication.

1. INTRODUCTION

The current global movements impose a continuous need for learning and adjustment to challenges in the business environment. In order to achieve it, one must learn basic things of his/her vocation, upgrading them throughout the years, because personal development is the most important step for further development.

The paper is the result of authors 'experience in the financial sector, which is very interesting and dynamic, where the challenges are frequently met on a daily basis. Furthermore, they have had opportunity to work in well-known domestic and international financial companies, to meet and cooperate with renowned experts in the subject area in the country and abroad. They have always tried to learn and adopt knowledge and

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skills from financial experts and consequently, to apply these positive experiences in every day work in financial intermediaries or to help their associates using acquired knowledge, in order to improve the quality of relationship with customers and colleagues in institutions. [1] In view of the fact that Serbian financial market is cantered around banks; the focus will be on the knowledge within the banking sector.

The focus of the paper is on the knowledge and skills which bankers should acquire in order to have better communication with colleagues working in IT divisions, and, furthermore, with other relevant stakeholders. The aim of both parties within the process, internal customer (banker-economist) – support (IT experts), is to cooperate better, and to provide the institution where they work with benefits of synergetic effects. The term information technology (IT) is explained in the reference [2].

The authors had the opportunity to work within the Serbian financial sector, before and after 2001. The differences in these two periods are related to the environment, ways of performing business, organization, applied software tools and regulation. In this paper, focus will be on the period after 2001.

In addition to the Introduction and Conclusion, the work is structured as follows. In the first chapter, a bank's internal structure will be presented. In the second chapter, IT division activities will be overviewed. The third chapter will cover skills, knowledge and competences which young bankers should require in order to communicate better with IT staff. At the end, in the fourth chapter, examples of successful cooperation between economists and IT staff within banks will be presented.

2. INTERNAL STRUCTURE OF BANKS

There are different definitions of a bank, according to: 1) economic functions which it performs; 2) services offering to the customers; 3) legal basis of existence. [3] In this paper, the bank is defined as business bank, which offers services to legal entities and individuals, collecting deposits and granting loans. [3]

The starting point is to know what the bank offer is, and how those products affect balance sheet and income statement of the bank. [3] They are possible to classify according to balance principle, segment of the customer, type of the income which is generated or according to the risk exposure of the product. Moreover, it is important to understand who the customer, what needs the customer has is and which organizational parts of the bank are involved in providing service, how business flow looks like, i.e. the process of execution of the request. Furthermore, it is important to understand the foundations of the organization and its IT structure, appearance of hierarchic structure of management and operations, and where the organizational part of executor (individual) in this process exists. The hierarchic structure is connected to the corporate governance (form, acts, equity, management and executive bodies, banking management, functions reporting directly to the shareholders). [4] The last, but not the least relevant factor is to be familiar with the business environment (in the widest possible sense, like: the financial system of the country, monetary policy of the central bank, competitions' challenges, consolidation and liquidation, global or regional possible enlargement global trends, changes in customers performances, increased risks, technology which changes, international standardization, world economic crisis, etc.) and regulation which is implemented, and what are the consequences for the executor [4, 5,6].

It is important to understand the fact that success of individual and its organizational part depends on the execution of customer's request. Primarily, the individual/executor of customer's request should be acquainted with the fact whether its organizational part generates income or incurs the costs. For the owners of the equity, it is always important the level of the ratio between achieved revenues and accepted risks, and whether they are in accordance with the regulation. [4]

The key concepts for managing banks are: Asset and Liability Management /ALM/, Risk Management /RM/ and Customer Relationship Management /CRM/. It is important to stress out that IT support ensures more successful implementation of the above mentioned concepts.

Risk represents probability of an unfavourable event, in the case of banking business, a possibility of a loss in a transaction, customer or business (material risk), i.e. a possibility of impairing bank's reputation (non-material risk). [7] Due to the increased volume of transactions, globalization process and higher interconnection, type and exposure of risk is increasing as well. However, risk management enables the risk to be mitigated, and restricted to the reasonable level, and financed through certain levels of buffers.

There are different factors which have impact on business risk, and usual acronym for describing all of them is TRICK (in Serbian language): T – technology risk, R – regulatory risk, I – interest rate risk, C- customer risk, K – capital adequacy ratio. [7]

ALM means strategic approach, indicating connection between obtained figures in balance sheet with bank's strategic orientation, as well as the holistic approach, i.e. universal approach in to the analysis and implementation. The components of balance sheet management are: maintenance of liquidity – money management, managing of capital adequacy ratio, credit and security management, and liability management. [6]

CRM represents the universal approach for establishment, maintenance and expanding the connection with the customer, and the way of thinking and behaving within the process of building the relation with a customer. CRM is the question of data, but the final aim is knowledge. Consequently, data, represent facts, i.e. the quality of data is possible to be considered to be assets, which should generate income for both the bank and the customer. The challenge is to combine information from different sources. [8]

In the practice, economists usually externally communicate with the customers, and IT staff represents their support. Consequently, it would be useful that those two parties effectively communicate.

3. BANK'S INTERNAL IT SECTOR

The IT sector of a bank can consist of: a department for development of IT application, department for IT support, department for IT operations and an organizational department. [1] Accordingly, it is organized for the purpose of creating, planning and permanent development of strategy, policy and management of bank's IT investments, as well as preparing of IT security documentation. Besides regular tasks related to the maintenance and development of applicative solutions for recording and managing of data bases, the sector has a specialised department for managing processes and procedures within the bank (the department for organization). [1]

Among the most important business needs that IT meets these three are emphasized [2]:

1. Increasing the efficiency of doing business processes,
2. Improving communication with customers, and
3. Expanding the scope of cooperation.

It should be kept in mind that a bank uses different applications in daily work, depending on size and target group of customers. There are also some in-house, while others represent externally bought rights of usage needed for applications and/or software. It is essential to connect them properly, respecting products and processes within the bank, in order to obtain adequate information decision.

In order to obtain the long-term profitable business of the bank, the ERP /Enterprise Resource Planning) system is required. It should consider transactions as a part of a comprehensive set of business processes. It can be divided on operative (transaction) and managerial (management) part. [9]

The most important operative information system of the bank is its ERP system, and the whole bank's ERP system can be structured on the following way [9]:

1. Core ERP modules – the most famous local ERP solutions are produced by Asseco.
2. Banking ERP Solution – Core Banking, as support to traditional banking business, and
3. Banking ERP modules as support to e-banking (e-banking solutions).

In Serbia, there are external e-banking solutions (such as Halcom) and in-house solutions (which local banks developed in cooperation with Asseco, or group to whom they belong). Also, there are local and foreign outsource solutions for payment cards processing.

It is the easiest when the complete ERP is provided by the same vendor, but it isn't usually the case. The standard division of banking ERP modules is on: 1) Front Office (in the presence of the customer) and 2) Back Office (without the presence of the customer) application. [9]

Besides ERP solutions: 1) banks as a rule use CRM system, which is responsible for: rationalization of products 'portfolio, reengineering of customer service processes, a greater degree of personalization, maximization of cross-selling and up-selling. [10] 2) Document Management System – DMS, because bank operates with huge number of documents and has obligation of storage it within defined period of time. [10]

Furthermore, next to ERP solutions, banks, as a rule, use: 1) the decision system support based on business intelligence, 2) different tools for serious analysis of big data quantity for internal and external purposes, especially connected to the reported requirements of central bank and other relevant state institutions. 3) Needs analysis for implementing analytic solutions which are being constructed under data base by appliance of OLAP and data mining techniques and reporting tools. [10] Generally, actual regulatory requirements for risk management, demand significant investment first of all in software tools for estimation of expected losses and on the basis of it recording in financial reports of the bank.

Having in mind the above, IT departments' scope of activities is possible to describe as follows [1]:

(I) the department for development of IT applications:

- Designing, developing, maintaining and introducing application support for business functions of the bank,
- System integration of the module and interface of the bank's information system,
- Participation in application development projects at the group level (local banks are mainly foreign equity owned and belong to internationally active banking groups),
- System analysis of the information system, data modelling, and functions,
- Participation in the analysis of requirements for changing and assessing the necessary resources and costs to meet the requirements,
- Development of functional specifications and technical documentation,
- Parameterization of the application support,
- Participate in the planning and implementation of application support testing,
- Managing application support versions,
- Assisting users of the IT system at the level 2,
- Participation in the development of instructions for the use of application support;

(II) The department for IT support:

- Installation of IT infrastructure and equipment, hardware, and standard system and application software,
- Technical maintenance, prevention and monitoring of IT infrastructure and equipment,
- Configuring and administering of IT system services,
- Relocation of IT equipment,
- Technical support for users,
- Maintaining technical documentation and records,
- Assisting IT users,
- Analysis of causes, finding solutions and escalation of problem solving,
- Coordination of support for users of IT systems on Levels 1 and 2,
- Keep track of requests for help and events on an IT system.

(III) The department for IT Operations:

- Design, installation and integration of IT systems and solutions,
- System administration and adjustment of IT systems,
- Analysis and testing of IT systems and solutions,
- Designing, installing, integrating and monitoring the protection of IT systems,
- Management, monitoring, servicing and maintenance of IT systems,
- System programming,
- System support for IT system users,
- Management of IT system documentation,
- Participation in the procurement of IT equipment,
- Implementation of production support activities.

The department for IT operations carries out these tasks on (d) the following IT systems:

- Server systems - IT infrastructure at a central location (server room),
- Database systems - database management systems (MS SQL Server),
- e-mail systems - e-mail transfer systems (MS Exchange),
- Server applications - special purpose server servers (Border Proxy, Unisys Depcon, IBM MQS, MS ISA, MS SharePoint Portal ...),
- External applications - special purpose programs and systems (video conferencing, credit score model, RTGS, SWIFT, core banking system, K + ...),
- Data storage systems - systems for central backup and archiving (Tape Library),
- Communication systems - data transmission systems (computer network) and network equipment,
- Telephone systems - voice transmission systems (mobile, IP, fixed telephony) including IVR and Call centres, and telephone equipment,
- Security systems - all protection systems against program viruses and attacks on server and telecommunication systems and data on them.
- Coordination of procurement in IT,
- Monitoring the activities of IT production systems,
- Analysis and testing of IT systems,

- Creation and management of the IT system database,
- Performing production procedures, reports, placing in circulation and distribution of reports,
- Perform backup and archiving procedures,
- Implementation and management of the telephone system,
- Systemic, technical, and communication support to the Multichannel Management Department.

(IV) The department of organization:

- Establishing and improving the organizational structure of the bank,
- Updating the organizational scheme of the bank,
- Defining, analyzing and optimizing the business and non-business processes of the Bank,
- Cooperation with the Internal Audit Department, the Legal Service Department and the Compliance Department for compliance with the bank's compliance with the bank's compliance with the bank's obligations towards external institutions, as well as the bank group's requirements,
- Defining the standards for drafting the bank's documentation,
- Coordination of the development of procedures with the bank's business and non-business functions,
- Participation in the group's projects and implementation at the local level,
- Planning, coordination and implementation of IT projects and project activities,
- Estimate the required resources, time, investment and costs for IT projects and activities,
- Monitoring the implementation and reporting on the status of IT projects and activities,
- Manage user requirements for creating / modifying IT applications, that is: coordination in defining requirements, feasibility analysis requires defining the resolution priorities, deciding on the development / modification of the software solution in cooperation with the members of the Change Request Board, testing solutions, implementation and coordination of the development of user instructions and coordination of training,
- Coordination of communication and activities in the field of organization and IT with the bank group.

4. BANKERS: SKILLS, KNOWLEDGE AND COMPETENCES IN THE PRACTICE

On the basis of the previous mentioned it is possible to conclude that economists should know very well the basic business i.e. products, processes, procedures and actual regulation, including accounting effects on balance sheet and income statement, in order to communicate adequately with IT colleagues. Furthermore, in the area of IT skills, economists should be familiar with data base, Microsoft office tools, way of functioning basic accounting software, and it will be preferably to have experience in usage of banking applications and relevant software.

The data basis intended for collecting, organizing, storage and manipulation of data, on the basis of which are gained information needed for end users. [11] Furthermore, accounting information systems are based on legal and accounting regulation, transaction processing and integrated business solutions. [12]

5. SUCCESSFUL PROJECTS OF COOPERATION BETWEEN ECONOMISTS AND IT EXPERTS

In practice, development of a bank isn't possible without good cooperation between economists and their IT experts. So, it is important that they understand each other very well in order to obtain long term profitable business for the bank and satisfaction of all stakeholders. In this part of the paper, authors choose two (per bank) successful examples of good cooperation, having in mind achieved results, spent resources and time of execution.

Based on their experience with Raiffeisen bank a.d. Belgrade, the authors chose the following examples:

1. Buying of a new software solution (Globus, foreign vendor) or an improvement of the existing application (in that moment Bapo, the ownership of a local company Antegra /today a part of Asseco/). The expert team formed by representatives of all bank's division look at the vendor's presentation, including functionalities, time of migration, and price. After that, they organized a meeting and made decision that it was cheaper and more functional to develop existing application then to migrate on new solution.

2. Buying of an external CRM application or development of existing one. In that moment, the company Halcom offered the CRM solution for corporate customers and presented it to the front office of the bank and IT experts in charge for development of application. Having viewed all functionalities of the Halcom's solution, the corporate staff suggested that it would be better to develop the existing CRM in Lotus Notes of the bank. Furthermore, the SME staff of the bank further improved CRM with introducing the loan approval process.

Based on their experience with in Erste bank a.d. Novi Sad, the authors chose following examples:

1. Transformation of IT division. It included the migration of the core banking system (NORGIT), providing of an adequate infrastructure on the basis of future expected business, improvement of existing e-banking channel and a transformation of the IT sector. The accompanied modules of the project were: NORGIT, support for data management project, documentation and reengineering of processes (connected to NORGIT) and establishment or the department for organization.

   NORGIT - Novosadska bank used to apply its own in-house solution, before it became the ownership of Erste bank Vienna. The new shareholders decided to migrate to the new IT solution IBIS, which was created by *Erste& Steiermerkische* bank d.d. Zagreb. NORGIT included the migration of the core banking system, providing of an adequate infrastructure on the basis of future expected business, improvement of existing e-banking channel and a transformation of the IT sector.

   The project was held in the period of the third quartile 2005 until 2007. The project team members were from the local bank and Erste group. The consultant on the project was AT *Kearney*. [1]

2. Reallocation of the credit administration from the front-office to the back-office of the bank (PIACA). As the result of the initial transformation of the retail and the corporate division (front-office), all activities connected to customers 'requests were in the front-office. It decreased possibilities for employees to process a larger number of customers' requests and increased the risks that funds of the bank would end up in the inappropriate accounts of the customers. So, there were the reasons to consider what would be the most convenient way to transfer administrative jobs from the sale departments to the back-office of the bank. It resulted in reallocating the credit administration for both front-office divisions to the processing (back-office) within 3 months period.

6. CONCLUSION

The key to good communication between bankers and IT experts is that bankers should know to precisely define a request. It implies that they should know very well product offers of the bank, understand client's needs, processes and procedures within the bank, functionality of used software, and the actual regulation. Thereby, it is important that all request proposals should be considered through prism of balance sheet and income statement of the bank, in order to understand on time whether the change is necessity or it is only a new whim in the market. The contemporary market conditions impose permanent need for monitoring innovations in the field of finance and technology in general, long-life learning process, in order to obtain competitiveness in the labour market.

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