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STRATEGIC ASPECTS OF CREDIT AND INVESTMENT ACTIVITIES OF COMMERCIAL BANKS: STATUS AND PROSPECTS

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Abstract: *We will consider the economic content of the category "Strategy". A set of rules for making strategic decisions, according to which the Bank implements its activities, will be presented in this paper. The instruments of strategic and operational management, allow the "connection" of the bank's strategic objectives with business processes and daily operations personnel at every level of government, as well as monitor the implementation of the strategy. Also, alternative models of competitive actions of commercial banks and their managers to maintain the best position will be presented. Architectural approach to the disclosure of economic categories "strategy of credit and investment bank" will also be discussed.*

Keywords: *business, balanced scorecard, investment strategies, credit strategies, models, strategy, management*

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1. INTRODUCTION

Management - a practical activity focused on results. The question is whether the strategy positively affects the efficiency of the bank? A qualified specialist for business problems considers the progress of the bank original strategy that can exist either as an idea that cannot be disclosed and is known to a few bank managers or as a vague idea of common purpose bank, supported by all, but far from a clear definition.

Strategy – a systematic approach that provides organizations with complex bank balance and the overall direction of growth. But how can a bank keep a strong coordination and balance with development and implementation of strategy? The answer is to be found in the very nature of the growth of the bank. If the bank serving emerging markets and demand structure changes slowly, processing technology and services are stable, then under these conditions the strategy changes slowly and gradually. The balance of action and organizational coordination is achieved through the accumulation of experience and adaptation. If the environment, technology, competition changes in normal speed, the leaders gradually adapted to the work, using the accumulated knowledge and experience. Thus, we achieve a balanced growth of the bank. Strategy remains stable and is not visible from the outside.

2. BACKGROUND

Usually, experts are not the management of banks, and the decision-making procedures in the state apparatus claim that the complexity of the organization, inaccuracy of information and limited capacity of human perception does not allow the application of a systematic approach to strategy formation. They believe that a strategy

should be unsystematic, informal, adaptive, as observed in many banks. However, the findings should make a point. A number of banks formulate their strategy and openly announce it. Note that the systematic development of previous acquisitions strategy provides higher financial performance than no plan and actions based on the specific situation. The reliability of these results is confirmed by their rigorous statistical verification. Open formulated strategy can improve the performance of the bank.

The basic principles of lending are returning, urgency, serviceability, security and achievement. Credit strategy - a combination of active and passive banking transactions considered in the future to ensure the bank achieve its goals and can solve the problem of optimal allocation of credit resources in the existing constraints (mandatory regulations of the NBU and the actual amount of funds for placement). Joseph F. Since determines a credit strategy - a documented scheme of organization and control of the credit of the bank. The document covers the general rules for the granting of loans and their classification, areas of credit strategy, quality assurance, credit committees. The first task of the banks in the development strategy of credit and investment activities to have a clear understanding of the global trends of social development and its role (mission) in this development [1, p. 325].

Development and implementation of strategies is essential in case of sudden changes in the environment. They can cause a saturation of demand, technological changes inside and outside the bank, the emergence of new competitors. In these situations the traditional principles and experience does not correspond with the new opportunities and ensure prevention of danger. If the bank has no prudent strategy, it is possible that different units are heterogeneous. Contradictory to this, in turn, it leads to conflicts within the bank and make it work irregularly and ineffective.

When in this situation, management should select the direction of growth and a number of alternatives that are hardly measurable and direct the efforts of the staff in this area. For this reason, a number of banks are trying to introduce a system of "planning - programming - development budget." If the bank is faced with the problem of financial resources, the allocation of resources the bank needs - an important step in the formation of the bank's resource strategy.

Segmentation environment of the bank in determining individual segments surroundings, which the bank wants to get out of, is a difficult task for management. The reasons for the difficulties lie, firstly, in the fact that the staff is not easy to change the angle of view, because they are accustomed to the environment in the context of a traditional set of banking services. However, they have to look at the environment as a field of new services that can attract competitors. It is advisable to offer leadership to the allocation of strategic areas of business. The second source of difficulty is that the business area is described by a number of variables. Bank normally assesses your environment for the growth of industries in which it operates.

In light of this, the area of business to be considered and the following parameters: the growth prospects of the bank should be expressed in terms of growth and life cycle of demand, predicted instability in which the prospects of the bank lose certainty and are subject to change, to successful competition in the future that define success in the area of business.

In order to make good decisions about the allocation of financial resources to ensure competitiveness of the bank's strategy, the management has to take over the process of market segmentation and a number of different combinations of factors. It is necessary to select a narrow range of areas of business. The combination of growth prospects (G) return (P) and the likely level of instability (T/O) provides a general assessment of the attractiveness of the area of business in the future (1).

$$3E = \alpha G + \beta P + \gamma O - \sigma T \quad (1)$$

where $3E$ - area businesses; α , β , γ , σ - factors which made managers indicate the relative contribution of each factor and the amount is 1.0. These ratios indicate the relative attractiveness of the targets for the bank: fluctuations, profitability of services, pricing, demand, market structure, the implementation of new services, the costs needed to access a new market, aggressive major competitors; competition of foreign banks, the power of advertising, the degree of customer satisfaction.

Michael Porter describes strategy as the bank's activities, aimed at achieving excellence, "As a result of all the differences between banks in the value or price derived from a variety of activities aimed at the creation, implementation and delivery of services. Differentiation occurs when you select the type of activity and its results. "The meaning of the strategy is to find a way to stand out from the competition, to offer customers a unique value [2].

Sustainable strategic position for Porter - the result of actions, each of which supports one another. Strategy - a guess. It involves the movement of the bank from the current state to a desired future position but dim since the future is an unknown position. Balanced Scorecard can be described as a set of strategic guesses clear and subject to the assessment of causal relationships. Moreover, strategic guessing requires the identification of activities (leading indicators) which strive to achieve the desired results (deferred or delayed indicators). Power to the implementation of the strategy - is to understanding each employee assumptions of constant testing and adaptation to reality, matching their resources.

Under the investment strategy we think of long-term investment goals and ways to achieve them. They are being elaborated during the tactical asset management, which includes the development of short-term objectives and means of their implementation. Development of the investment strategy is the starting point of the process of investment activity. The formation of investment tactics occurs within defined areas of investment strategy and is focused on their performance in the current period. It involves determining the amount and composition of investments, development of measures for their implementation and, if necessary - drawing models to decide on the release of the project and the mechanisms to implement these decisions.

An important component of management from the perspective of developing a plan of strategic bank development is to evaluate the relationships that determines the effect of changes in various parameters of the external and internal environment on the properties of the plan. A failure to establish relations in a changing environment in which the Bank operates leads to an increase in uncertainty. This is due to the complexity of the formation of the plan. In the literature on the processes generating the bank's strategy, authors focus only on processes rather than on their relationship with the quality of the strategy. In this section, we consider it necessary to form a new methodological approach to the formulation and implementation of the bank's strategy.

3. RESULTS AND DISCUSSION

Balanced Scorecard is based on cause-effect relationships between strategic objectives that reflect their parameters and factors in order to obtain the planned results. The emphasis is on creating a feedback loop that is required to test the viability generation strategy. Within the methodological approach a strategic map is formed that

reflects causal relationships between the factors that determine the performance of the bank. Model development strategy of the bank is shown in Fig. 1.

Strategy Map consists of four layers. The top layer - the financial performance of the bank. Client layer defines the achievement of specified performance of the bank. Client layer is placed over a layer of business processes. The quality of execution of business processes is determined by the qualified personnel of the bank, which implements these business processes. Each layer has critical success factors and objectives of the bank that are connected. The task of the financial component is solved by attracting new sources and expanding relationships with customers (increase client value). The task is successfully solved by managing costs and assets of the bank. Valid values determine the strategy competition for new clients. The exact definition of value propositions is an exceptional step in developing a strategy map. The inner component defines business processes and special events, the successful solution of which enables the bank achieve a customer value proposal.

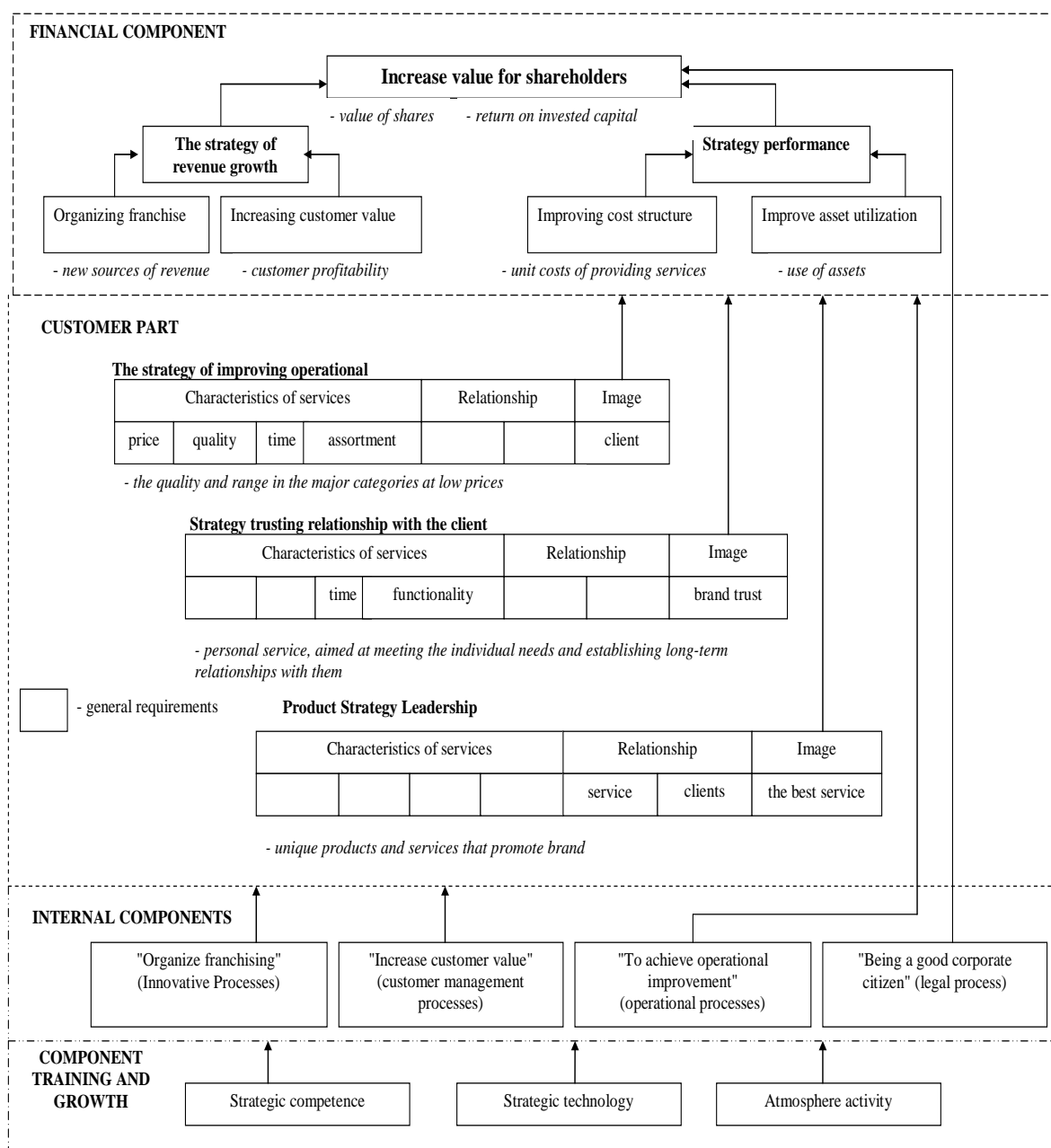


Fig. 1. Generalized model of the bank's strategy

A generalized model helps to describe the strategy of the bank and initially identify and eliminate weaknesses. The model accurately describes the customer value proposal and shows the need for interconnection of internal processes, competence of personnel and technology. The main purpose of the concept of performance management based on Balanced Scorecard (Balanced Score Card, BSC) - the bank's management to transform the vision into reality and link strategy to operational activities and cost factors. Unlike traditional management based on the financial performance of the system BSC related business processes aimed at customer satisfaction. BSC-model displays the information management capabilities to include non-financial indicators in the evaluation system of the Bank for the purposes of management. Non-financial criteria are related to the basic success factors. Graphical representation BSC-model shown in Fig. 2.

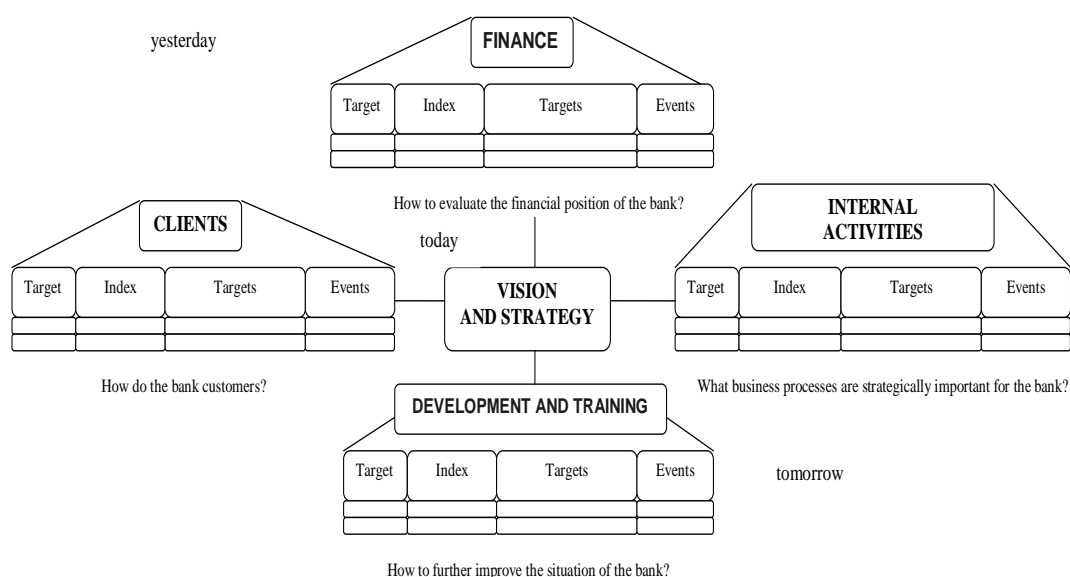


Fig. 2. Kaplan-Norton Model

In BSC-System Key Indicators of the Bank are grouped in different directions. They help management to identify the strategically important activities and orientate on achieving goals, using knowledge efficiency of business processes [3].

BSC-Lorentz model Meysela defines four perspectives based on the estimated performance of the bank (Fig. 3). Unlike learning and growth perspective, in this model there is the perspective of human resources. Innovation, education and training, development of services, expertise and corporate culture are evaluated. The reason for using this factor is that the bank's management should evaluate both the effectiveness of processes and systems, and its staff.

K. McNair, R. Lunch, K. Cross proposed a model, called the pyramid of efficiency [4]. The basic concept of the model is the relationship of the customer oriented corporate strategy to financial indicators, complemented by significant qualitative (non-financial) performance. Traditional management information is obtained only from the upper level. Pyramid efficiency is based on the theory of global quality management system based on human activities and computer systems to meet customer needs (Fig. 4). Pyramid efficiency shows the structure of the bank, which provides two-way communication needed for decision-making at various levels of government. Objectives

and indicators are associated with its operational activities. That is, the goals are transmitted down the bank and figures are collected from the bottom up. At the top level of management the Bank formulates a corporate vision. At the second level there are the whole units and departments specified for market and financial performance. Customers and shareholders determine what should be measured. The third level consists of areas within the bank. These directions are cross-functional and penetrate several departments. At the same time the objectives and functions are focused on customer satisfaction and duration of the business cycle and is the link between the upper and lower tiers of the pyramid. Three goals at this level demonstrate the effectiveness of the mechanisms against the markets and other financial goals. Also at this level there are such objectives as quality, time of service, length of business cycle costs defined. Quality of service and time associated with external action, and duration of the business cycle serve as indicators of internal losses of the bank. The top of the pyramid is dominated by financial evaluation periods which are much greater. We believe that a system of indicators should be integrated so that the operational assessment of lower levels is consistent with financial indicators on the upper levels. This model of corporate governance is able to show the underlying financial estimates.

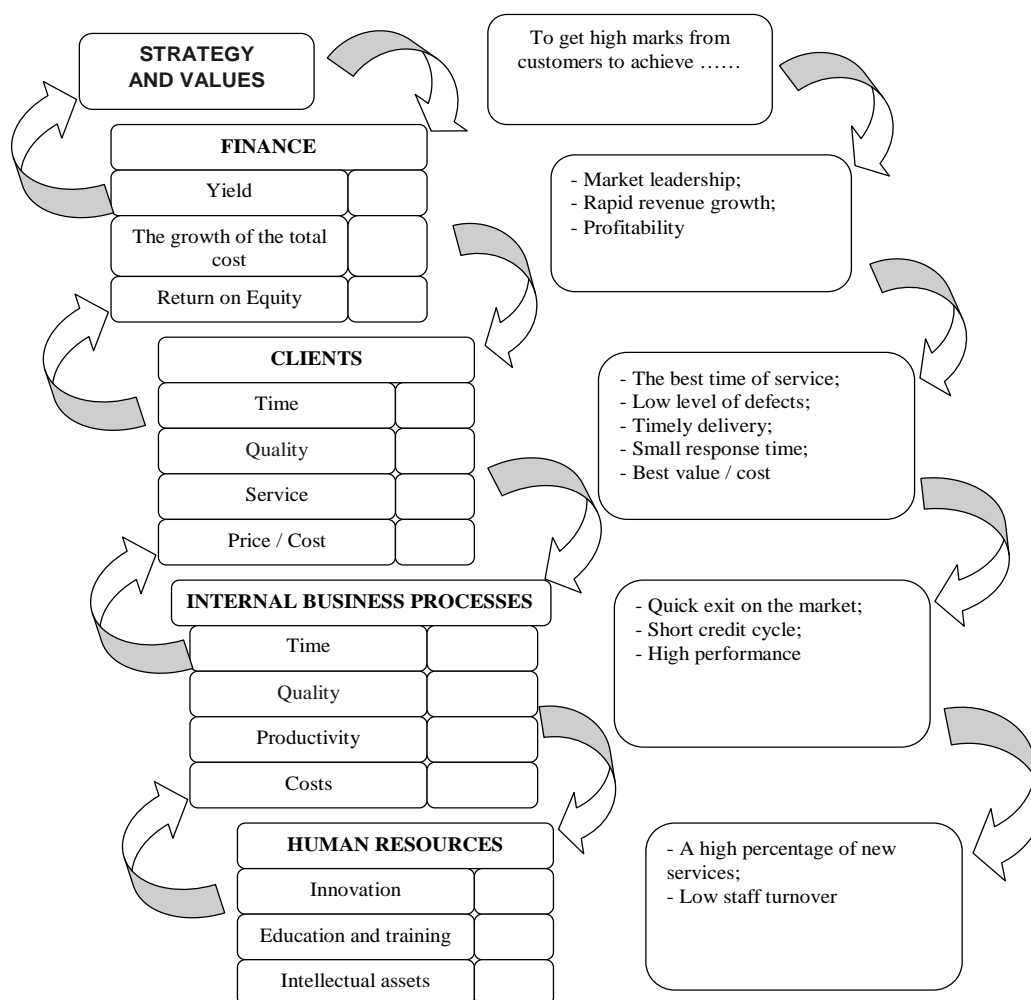


Fig. 3. Model Meysela

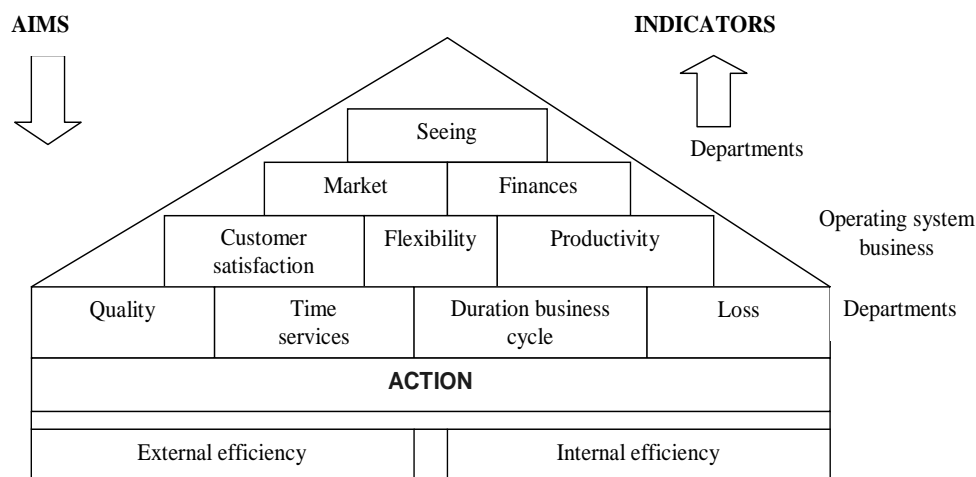


Fig. 4. Pyramid efficiency

C. Adams and P. Roberts proposed a model EP²M (Effective Progress and Performance Measurement), which is graphically shown in Fig. 5. Under this model, the bank operates in the following areas: customer service and markets, improving internal processes (increased efficiency and profitability), change management and strategy, property and freedom of action [5].

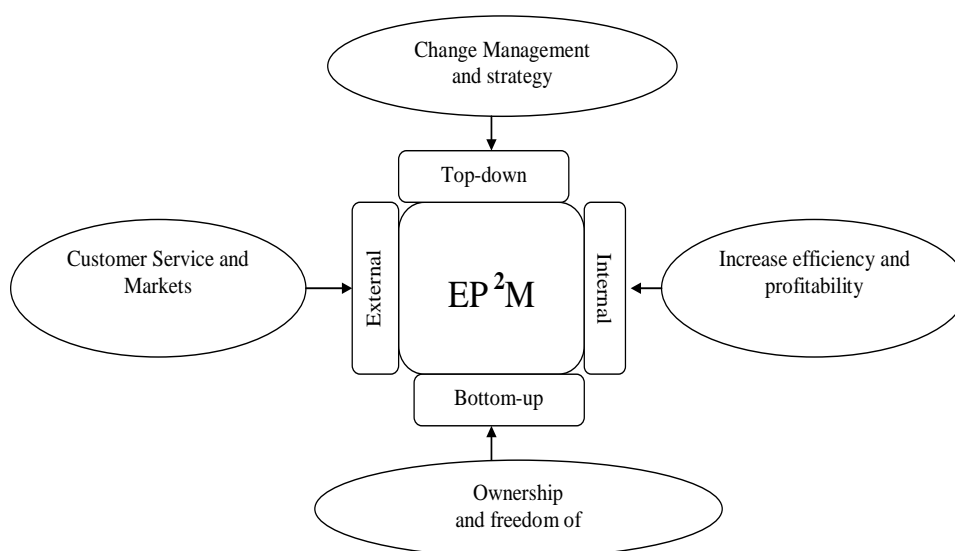


Fig. 5. Model by Adams and Roberts

Strategic management involves two consecutive phases: the strategy and its implementation. Formation - an analytical process to determine "what to do". Implementation - one position, the organizational process that helps to determine "how to do" and "who will?", and the other - a process that contributes to the development of management skills and change. The purpose of the system is to provide a development strategy of the bank, as well as the formation of corporate culture.

The use of strategic management can provide a more complete vision of the real condition. The above presented concepts of BSC-model have a perspective, because it allows you to broadcast specific activities and strategies to maximize the full set of parameters which effectively form a system of strategic management [6, p. 86].

4. CONCLUSIONS

Under the strategy, credit and investment bank proposed the dynamic system of interrelated rules and methods by which the effective formation and maintenance of long-term competitive advantage is ensured for the bank's domestic and foreign markets and also individual and social benefits. The fundamental concept of a strategy is considered as a system of rules and techniques: aimed at reducing credit risk and maximum return on loans, related to the provision and repayment of loans, mobilization of available resources and their use on a return basis, which includes investments in private and public security papers and a set of actions to implement them, in accordance with all laws: integrity, communicative, feasibility.

In this case, there is an entirely new methodological approach to the optimization strategies of credit and investment as the trajectory of the dynamic system, which is implemented not only verbally but also in the form of a complex economic-mathematical model.

On the basis of fundamental research economists proposed architectural approach to uncover the concept of credit and investment bank activities - a combination of its lending (investment) strategy defines the principles, priorities and objectives of the bank in the financial market and credit (investment) tactics, which defines financial instruments used by the Bank to fulfill its objectives in the implementation of loan agreements, investment rules for their implementation, the organization of credit and investment process.

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ELECTRONIC BUSINESS – ASPECTS OF DEVELOPMENT AND POSSIBLE CONSEQUENCES

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Abstract: Simple and fast communication, almost instantaneous transfer of large amounts of data over long distance, easy publishing and updating of multimedia documents and their continuous global availability, digital delivery of goods and services, direct payments via the Internet, creating virtual organizations and many more elements comprise electronic business.

Electronic business (e-business) is becoming increasingly important in the global economic tendencies, a completely new type of economy - the Internet economy. E-business, in simple words, represents a manner of doing business based on the use of informatics, especially the IT.

Key words: E-business, Internet economy and IT technology

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ELECTRONIC BUSINESS – ASPECTS OF DEVELOPMENT

1. INTRODUCTION

E-business is a general concept that encompasses all forms of business transactions and exchange of information that is obtained by using information and communication technologies.

The main advantages of electronic business are reflected in:

- reduction of operating costs,
- reducing errors in electronic transactions,
- cheap global publishing of transactions,
- possibility of replacing high paying jobs.

The rapid development of various forms of electronic banking imposes the need for a comprehensive overview of the legal significance of the new electronic forms of e-services offered to their customers with all their advantages and disadvantages. New information technologies are implemented in the E-system through various usage forms of new E-products in order to faster adapt to E-trends.

2. THE TERM AND CHARACTERISTICS OF ELECTRONIC BUSINESS

**„All business ventures today are competing in two worlds:
in the real world of tangible information and the virtual world of information.”**

Rayport and Sviokla, Harvard Business School

According to the EU methodology, E-business is a collection of commercial activities conducted over electronic networks (usually the Internet), and aimed at the sale or purchase of goods and/or services.

In the report of OECD, electronic business refers generally to all forms of transactions related to commercial activities, including organizations and individuals, which are based on the processing and transmission and digitized data, including text, sound and virtual representations.

Jelena Vilus electronic business defines as conduction business electronically or without papers – “paperless commerce”.

It is a revolutionary new way of doing business by computer and communication systems. The development of e-business has led to the creation of new and modification of the existing institutions and the adoption and understanding of specific concepts: e-market, e-marketing, e-banking, e-money, e-auctions...

This is a business without time and space limitations.

New technologies enable banks to provide a quicker access to a client who no longer has to come to the bank in order to be serviced.

The development of information technology and its implementation in the organization of the modern economy and initiating the process of the technological revolution represent new impulses for the further development of the world trade.

E-business can be defined as "the buying and selling of information products and services over computer networks and support for any type of business transactions via digital infrastructure."

E-business adds a new element: **information**.

Online businesses evolved via different technologies:

- production communication governed by requests,
- team-based businesses and grouping,
- logistics of business,
- desktop video conferencing,
- search and store,
- e-mail (communication),
- electronic data exchange (procedure),
- exchange of technical information (engineering).

Basics of e-business were set in 60s in the United States under the name Advanced Research Project Agency Network.

Electronic business is a synonym for modern, successful, efficient operation of all companies.

The terms with the letter "e" (electronic), including the term electronic business, have recently been exclusively associated with Internet technology.

In general E-business is any business activity that can be viewed through several aspects:

-In terms of communication - e-business is the delivery of information, products or services as well as payment by phone, computer network or any other resources,

-In terms of the business - is the use of new digital technology over the already automated business transactions,

- In terms of service - is a tool that provides users with information on companies, offers services and offers a better insight, faster and cheaper, into one's offer.

- In terms of online perspective – provides the possibility of buying and selling products and services and information through the Internet and other on-line services.

The growth of electronic business in recent years compared to traditional types of business has caused changes in the rules of business and its regulation.

Apart from technological assumptions there are some legal requirements which should be met which will enable the smooth development of electronic business, copyright and privacy and ensure the universal access to the network and appropriate pricing policies for network access and information use.

3. ELECTRONIC BUSINESS AND INTERNET

The Internet can rightfully be called a third economic revolution, which offered a huge market for electronic business. High-Level Group considers that the Internet is the most important holder of the electronic business, which has so far appeared.

Perhaps the best definition of the Internet is a sentence of commercial advertising house Apple: "Do not think what the Internet is, it's all that you want it to be".

According to the research results conducted in mid-2005 Internet is a network of more than 25 million computers used by over 500 million users around the world, and this number has doubled by end of 2007.

The work of Internet has been supported by:

- Organization for Standardization,
- IETF (Internet Engineering Task Force) - solves eventual technical issues that may appear on the Internet and IAB,
- INTERNIC - responsible for naming computers and the Internet address,
- International Organization IOSCO (Internet Society) - responsible for the development of the Internet, the evolution of Internet technology, the development of Internet standards, education on the Internet, the availability of the Internet in undeveloped countries and developing countries...
- State governments in the area of their authority,
- EFF (Electronic Frontier Foundation) - for freedom of speech on the Internet.

3.1. Internet as a business platform

The beginnings of the commercialization of the Internet go back to 1994 when the first real electronic transaction was conducted, at the World Wide Web conference between Geneva and Amsterdam.

Since then, companies have learned a lot about the identification of different consumer communities that appear in the Internet environment, the smart Internet policy planning and making big money.

Global presence, huge number of users, ease of use, being dynamic and a number of other advantages will become indispensable assumptions in the business world.

The Internet economy is the discipline that deals with the multidimensional and interdisciplinary study of the economic, social and technological impact of computer networks.

The purpose of the Internet economy research is to troubleshoot cost types, structure and allocation and define the pricing strategies on the Internet services market.

4. PERSPECTIVES OF DEVELOPING E-BUSINESS

According to the action plan e - Europe 2005, e-business includes e - trade (buying and selling via the Internet) and the restructuring of business processes in order to realize the best use of digital technology.

During the global economic crisis, data from 2013 indicate a huge increase in traffic in this area, which globally is around 2.1 trillion dollars. The highest annual growth was recorded by China with an annual growth rate of 71%, and Croatia has the highest growth rate in the EU-data are valid for 2013. Serbia had a turnover of 180 million Euros in the on-line trade in 2012.

The growth of e-business is perceived also in the higher income from such transactions which amounted up to 1,000 billion worldwide in 2012, out of which the U.S. had 228 billion in 2012 due to these types of e-transactions.

There are estimates that the turnover in 2016 will be around 4-4.5 trillion US dollars. Accepting the practice of e-business, Serbia needs to take advantage of new economic opportunities opening up in order to:

- promote economic growth and social development,
- improve business efficiency and productivity,
- reduce operating costs,
- enable domestic companies to re-integrate into the European and world market.

In the modern era of global development of the world economy and society, e-commerce becomes a driver of global economic growth.

The lack of use of e-commerce leads to restricting the development of the national economy.

The advantages of using e-commerce can be defined in the following way:

Reduce operating costs, increase efficiency in terms of expansion potential and better satisfaction of customer needs, improving products and services through an interactive relationship between the consumer = increase of competitiveness and employment opportunities.

5. U.S. AS PROMOTER OF E-COMMERCE

Southeast Europe as well as Serbia should integrate e-commerce into their development strategies to keep pace with developments in the comparative unfavorable position.

Framework of e-business can not appear on its own. Government Centre for Information Society (GCIS) may establish a coordinating committee in which representatives of relevant private/public sector would participate in order to coordinate the framework development for e-business, in line with European and international standards.

The Coordinating Committee shall be responsible for:

- Overview of the current state of e-business in the country,
- Establishing conditions, limitations, obstacles related to the implementation of e-business
- Implementation of strategies to create a framework that will enable the implementation of e-business
- Monitoring progress and adjustments if applicable,
- Removal of administrative barriers,
- Active collaboration and participation in international initiatives in the field of e-business, including a working group of the Electronic South East Europe (e-SEE), an e-Europe, UN / CEFACT, UNCTAD, etc..

Also, one of the most important responsibilities of the public sector is to create a reliable, secure environment for e-business. This would include: a reliable legal framework for handling the e-business, in order to make all of the involved trustful.

The responsibility of the Government of Serbia is to follow the development of this legislation and guidelines in the EU on which it will base practices that will apply to domestic economy. Information on the current European legislation and standards are an important element of the business environment and their availability will greatly facilitate making decisions at the company level and in different administrative entities. This implies the adoption of related laws and by-laws to regulate this area out of which is in Serbia so far the following are being applied: Law on Consumer Protection, while the Law on Payment Services is still under consideration by the National Bank of Serbia. The situation is not better in other countries in the region and the former Yugoslavia.

Starting from the above said, the key facts which need to be considered when creating a legal framework for e-business include:

- data protection;
- safe form of contract in legal and commercial terms;
- regulation of the Internet environments;
- validity of an electronic signature;
- Consumer Protection / distance selling;
- e-privacy;
- issues relating to the settlement of disputes, including the dispute resolution through (ODR);
- anti-terrorism (anti-terrorist measures / measures to prevent money laundering;
- intellectual property rights;
- the Internet contents regulations;
- Law on electronic archiving;
- Law on Free Access to Information;
- Law on the Protection of Personal Data.

CONCLUSION

New information technologies are being implemented through different types of use of new products in order to make rapid adjustments to global trends. A great number of services are performed electronically so this implies rapid adaptation of users to these trends.

The Internet has introduced new opportunities in business, especially electronic business. It changes the principals of management.

What used to be difficult or impossible, it is now doable. The whole world market is available. In such an environment only those who have a proper approach to e-business and more importantly correctly perceive the requests of customers will survive. The customer is the center of interest, the center of attention, the sphere of all the efforts of the company.

For businesses to meet customer requirements and increase customer satisfaction and then the profit, they must first of all know the customer. The web site has proven to be the cheapest and the easiest way to collect information about customers. The web site supported by an infrastructure in the form of a data warehouse is a great way to personalize customers which further leads to the increase of the loyalty of buyers.

Re-engineering of business processes, as the basis for obtaining any products customers want, building corporate information systems as a place for analysis and customer segmentation and effective website connected to the corporate information system as the place where the company and customers meet.

As an unavoidable imperative prerequisite for the creation of optimal conditions for future prosperity in this area, there is a requirement of legislation that adequately define the basic principles of communication between the participants in these transactions, provide regulations concerning the control of cash flow, tax and monitoring negative impact and consequences of transaction that they may have on the national currencies or to central banks. It is very important to create protection mechanisms against the uncontrolled flows of e-money that comes from these or such transactions, where virtual e-money has no nationality or boundaries.

Moreover, the new e-coin - BIT COIN is becoming more and more present in e-transactions globally. These and similar surrogate currency may bring more confusion on already shaken financial markets.

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CONTINUOUS EDUCATION OF HUMAN RESOURCES IN THE FUNCTION OF HEALTH FOOD PRODUCTION

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Abstract: Continuous education is applied to the whole human life. It starts in preschool years, and it relapses several times due to work period, always provides new opportunities also involving parents, educational institutions, companies and all other social factors in that everlasting process. Therefore, the very essence of the learning society is embedded in the tendency that each individual in the society has certain knowledge, skills or in psychological terms, competences. In such a society that individual is a hub of that competence which should be transferred to others. This concept is based on learning, not on education and upbringing. The concept of the learning society is envisaged in the life long learning process.

Key words: continuous education, management, agricultural organizations

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1. INTRODUCTION

The opinion that the “intellectual luggage” acquired during schooling can serve us throughout the life had been shaken in the first half of the twentieth century, only to be refuted in the second half. The continuance of education is the inevitability of the scientific and technological development, which has made a remarkable breakthrough in food production. Moreover, there is plenty of data how education enhances agricultural production, especially in its primary sector. Unfortunately, there is a lack of the institutions, which would systematically deal with the issue of agricultural education, especially with the education of individual producers.

2. CONTINUOUS EDUCATION – THE PREREQUISITE FOR HEALTHY FOOD PRODUCTION¹

The traditional view that we learn only in the early stages of our life is wrong and surpassed. Not only do we learn as children or adolescents but also as adults. Despite the fact that the investigation has shown that the best period for learning is between twentieth and twenty-fifth year of life, our intellectual capacity does not change substantially after that period, unlike our intellectual speed, which decreases with time. Therefore, it is important to create a society that not only works but also learns. The fact that we learn throughout our whole lives has opened a new chapter in the history of education- continuous education.

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Paul Lengrand includes the following requirements in the basic principles of continuous education: (1)

- the necessity of ensuring continuous education, so to avoid the dissipation of knowledge
- the adjustment of plans and methods to the specific aims and characteristics of each society
- the instruction and training of the people on all levels of education for constantly developing and changing way of life
- the mobilization and the complete use of all means of education and information
- the close connection of different forms of functioning and aims of education

There is a lot of written material on continuous education in agro-industrial complex in the world. Mathematical models are given for the optimization of continuous education (Tassois Legifhetis, Greece, 1974.), there are plans and programs in many western countries and all counties of SEV; there is a practice in Russia where after some five, six years in practice after schooling, people go through continuous education of various duration (up to one year). The university professors participate as listeners but also as lecturers, and the program is carried out by Agricultural academy “Timirzijeve” in Moscow. The most famous and at the same time the largest center in the USA is the university in Wisconsin. It is considered that about 15% of engineering cadre is encompassed by continuous education in western countries. There are many world conferences (Mexico) and many councils on the subject accompanied with an increasing number of text in newspapers, magazine etc.

The primary aim of continuous education is to skill young people for their first profession, and then, through work and the results, to encourage them to finish successfully the higher levels of professional qualification. In this process, the most capable and diligent cadre reaches the highest level of professional and working proficiency, despite their social backgrounds and other aspects of observation.

In 1972, French philosopher Caudors emphasized this kind of necessity by saying “learning should not stop at the moment one leaves a school.... Education should encompass all periods of human life, because there is no period that is unsuitable for learning”. (2) Not until the sixties continuous education in correlation to scientific and technological development receives larger dimensions and all under UNESCO’s initiative. Therefore, we can say that continuous education is characterized among other things by:

- the necessity that people have to learn continually throughout the life,
- the task of the whole society to interest people in itself,
- the possibility that continuous education can be reshaped by different forms of learning and self-education,
- the eagerness for life, the present and the future, that is, making people capable of leaving and achieving some positive changes in the inconstant world.

The primary aim of continuous education is to teach a man or a woman how to think in an independent and constructive way and to learn how to learn. Only in this way, he/she can creatively enrich and humanize his/her and others’ work and life. Hence, the main function of continuous education is to prepare a man or a woman for changes that may occur in the time and the society he/she works or lives in.

The preparations for continuous education should begin even during the studies, though introduction of certain disciplines that help students to complete their studies successfully and on time.

3. CONTINUOUS EDUCATION AND TECHNOLOGICAL CHANGES IN THE AGRO-COMPLEX

In the century of great scientific and technological changes, the concept of continuous educations comes more and more into the foreground in many countries. Therefore, the introduction of a new and qualified cadre in economy and constant improvement of the existing, their social recognition and material rewards must be represent constant and mutual care, obligation, and responsibility of all working people. Academician Darinski is right when concluding that the scientific and technological development in the agro-complex through continuous education demands “learning as the necessary activity people in all domains of their lives that represents the possibility and the necessity for all people of all ages, the renewal, the supplement, and the appliance of the earlier acquired knowledge and skills, the constant broadening of horizons, cultural expansion, the development of potentials, the achievement of proficiency in any profession, and the acquiring of new professions. The modern scientific and technological progress in the agro-industrial complex assumes than no school can give somebody a complete education, that one cannot make a living solely on one degree, that the people of all ages have to be continuously educated. It is justly anticipated that the men and the women of tomorrow will spend more and more time on learning-studying in the struggle for healthier food, and less time on work in the traditional sense, especially in production. It is pointed out that a workday will have two components: the work in production and the work as the permanent learning-studying.

We sit out the half of our lives in classrooms without any consequential activity in the field any profession whether it is in production or not. This traditional practice becomes less and less acceptable. For example, Alvin Toffler (3) in his work “The Third Wave” promotes the house workshops, “the units that produce and consume”, which would involve children besides parents that will develop their working habits along the school ones. In this way, children develop their work habits simultaneously with the school habits.

Continuous education in the agro-industrial complex considers self-education as particularly important. Self-education represents such a form of education that should be encouraged not only by the needs of the society but by the needs of a men or a woman as well. It establishes simultaneously a direct relationship between the subject and the educational sources, makes the process of learning possible, modulates the needs and the capabilities of the subject that self-educates himself/herself. It is not enough to practice memorizing things, but also it is important to encourage thinking, to train beginners do become insightful, to discover new relations and links, to look for, find, and use new sources of knowledge to become capable of self-education.

In the development and the appliance of new technologies in the agro-industrial complex, the principle of the integration and the complexity of those technologies becomes more and more important. This brings about new requirements about the quality and the level of qualifications of the employed cadre. Namely, the modern technology of production in all the parts of the agro-industrial complex represents a very complicated phenomenon, where mechanical processes are being more and more substituted by the electric, electronic, hidropneumatic, optic, while the processes based on chemistry, biology, and genetics are used even more then in any other domain of economy. Therefore, the motivation of every individual is very important when deciding for continuous education, which, as a constituent part of the development policy.

4. THE PROBLEMS OF CONTINUOUS EDUCATION IN THE PRODUCTION OF HEALTHY FOOD

The relation of continuous education and the development of enterprises in the agro-complex raises inevitably many questions. However, we consider the following three to be the most important:

- a) The problem of constant obsolescence of knowledge, the rate of the obsolescence, the amount of time that can be used for learning concerning the rate of the obsolescence, and the desirable contents of continuous education. The obsolescence encompasses the whole scope of knowledge of the cadre. However, according to its origins and from the point of view of the specificity of the development of the agro-industrial complex, the obsolescence can assume following forms:
 - the professional obsolescence refers to a profession and can be calculate by the equation:

$$Sz = (1 - \frac{S_{nz}}{M_{nz}}) \times 100,$$

Sz – the professional obsolescence of knowledge of the cadre in the agro-industrial complex altogether, by parts of companies,

S_{nz} – the possible level of knowledge from the trend development point of view, where continuous education means condition sine qua non.

- the technological obsolescence which refers to the aspect of knowledge of the cadre concerning new technological achievements that happen on the daily basis, and it cab be calculated by the following equation:

$$Tz = (1 - \frac{S_{ntz}}{N_{ntz}}) \times 100,$$

Tz – the technological obsolescence,

S_{ntz} – the current level of technological knowledge,

N_{ntz} – the new level of technological knowledge that is known to the agro-industrial complex.

- the obsolescence of the knowledge used for the completion of concrete assignments and tasks in food production, which is only another term for the disequilibrium between the actual and the needed level of education, or the level of qualification. It can be calculated by the following equation:

$$Sz_p = (1 - \frac{S_{nzp}}{P_{nzp}}) \times 100,$$

Sz_p – the obsolescence of the knowledge of an individual,

S_{nzp}- the current level of knowledge of an individual used for certain jobs and assignments,

P_{nzp}- the required level of the knowledge of an individual. (5)

- b) The second problem refers to the parallel growth of the general level of professional education and the degree and the dynamics of the development of the agro-industrial complex. Here, we have in mind the university knowledge in particular. In addition, the question of specialization becomes more and more important, because” the opinion starts to dominate that students should acquire a solid general, theoretical, and professional base for their chosen profession, then they should be trained for self-education and a quick acclimatization to new needs that development will create inevitably”. The so-called “crisis of universities” affects the agro-industrial complex as well. This crisis is a worldwide problem. (6)
- c) Despite the struggle for the greater motivation of an individual for continuous education, we have to bear in mind that with the excessive individual’s ambition comes the possibility that he/she surpasses his/her level of competence, or in other word, the threshold of his/her potentials. Laurence Peter and Raymond Hill have recognized the phenomenon that represents a real technocratic danger. If it is to be avoided, continuous education must be limited by the following factors:
- the aims must be clearly defined at the beginning,
 - the kind of required knowledge must be defined,
 - a great enough perseverance when learning,
 - a great interest and an personal need for learning,
 - a well-built system of learning
 - a good mentor, because the mentor’s absence would lead nowhere,
 - the right usage of books and the knowledge in them,
 - self-discipline and work habits
 - insight and acclimatization to new situations,
 - observation, comprehension, listening to others, working in a team, good relationships with colleagues, etc. (7)

5. INSTEAD OF CONCLUSION

The principle of continuous education should be introduced even in elementary schools with extracurricular programs in the field of agricultural production, which should have, above all, a part in raising the youth’s awareness of the importance and the benefits of the work in agricultural production. In high school, pupils should already know what awaits them, not only in their future professions, but what will be the consequences of their eventual decision to live in the country. Through higher and the highest education with further deepening of professional, even scientific, problems of agricultural development, young people should have a well-built attitude towards the concept of continuous education that will be the necessary starting point on the road to the development of (their own) agricultural production.

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INFORMATION SYSTEMS IN BUSINESS LOGISTICS

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Abstract: *Successful functioning of modern enterprise economy assumes the existence and the proper use of adequate information system, which is a very important business function of the company. "The information system is a set of relatively isolated information about specific phenomena and events that are organized and systematized to some common features and principles, and as such have become useful for exploitation by their users." The information system is a vital component of business management. Without a good information system there is no rational and efficient operational management. The information system includes the process of creation, distribution and the use of information [1].*

Information is necessary and valuable at each step of the decision making process: before, during and after the business decisions are made. Accurate, timely and swift information is a prerequisite for undisturbed flow of logistic activities and operations. Logistics information system is a result of integrations between information and functional processes within the company [2]. Information system of integrated logistics is a computer-assisted system that provides integrated logistics support management of business activities and management within the logistics system itself.

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1. INFORMATION IN LOGISTICS OPERATIONS

Logistics management is carried out by passing a number of decisions concerning different system segments, at different levels. All logistical decisions are based on adequate pieces of information available.

Information in logistics represents messages and notifications related to the operation of a logistics system. In essence, it concerns the means of understanding and communication.

Information required for logistics activities is provided by the logistics information system. It is a subsystem of the overall logistics system.

Commonly used information in the logistics operations concerns:

- Present and future suppliers – their name, headquarters, the available range of goods, place and manner of delivery, payment terms;
- Current and potential customers – their name, registered office, the necessary quantity of the goods, delivery schedule, method of shipment of goods, payment;
- Competitors who provide logistics services – their name, residence, position in the market, the favor quality, as well as their logistics channels functioning;
- Own logistics system – which includes the level of organization, functioning within the system, business relations with the environment, position in the market;
- Members of the logistics system – their functional connectivity, the level of cooperation, communication;

- State and prospects for further development of logistics technology;
- Supplies of goods in logistics channels – the type, quantity, conditions in some segments of the system;
- Institutional solutions relevant to the operation of a logistics system – concerning legislation and measures of economic policy, economy, business and more.
- All the above information is provided by the logistics information system. It enables the creation, distribution and use of intelligence necessary for the implementation of logistics activities. Its operation is quite complex and involves a number of activities:
 - Collecting the necessary data,
 - Elaboration, systematization and processing of the data collected,
 - Creation of the desired information,
 - Storage facilities of the available data and information,
 - Distribution of the necessary information to its users,
 - Use of information [3]

There are two kinds of information used for logistical operations of particular importance - internal and external. The first ones are provided within the system and related to its operation, and the other ones, external information, derive from the environment and are important for business logistics.

2. THE BASIC COSTS OF INFORMATION IN LOGISTICS SYSTEM

The logistics system is a set of interconnected segments, organized so as to allow the successful movement of goods from producer to consumer. The main segments of the logistics system are: transporting, storage, packaging, handling of the goods, etc. In terms of functionality, the entire logistics domain consists of three subsystems, namely:

- Logistics in the supply business,
- Logistics in manufacturing, and
- Logistics in the retail business.

Between the subsystem and system segments very dynamic processes of goods and information flows take place. Their relations are closely correlated. Information flows can take place before, during and after the physical movement of goods. Given the resources and channels in the logistics system, there is business correspondence, direct communication by telephone, teleprinter, radio or television, direct conversation without adjuvants, and lately more and more use of computer data. Certain channels and connections are chosen according to their suitability for the transmission of information more efficiently by achieving greater consistency and compatibility with the objectives of physical logistics system at the right cost. Each of the communications facilities and connection channels has different characteristics in terms of speed, reliability, capacity, documentation and cost of information transfer, so it is not equally suited to every occasion and for every process. Communication tools and channels are selected primarily according to the scope and complexity of communication networks and to the requirements that are based on the quantity and the quality of information flow in a given time [4].

The basic flow of information in the business logistics system takes place between:

- Logistical services and suppliers,
- Logistical services and customers,
- The members of the logistics channel,
- Between the business functions in the company.

Important information for the marketing logistics is the one that occurs in the sales subsystem, related to any business relationships between logistics of the suppliers and customers. These relationships are achieved through ordering and delivery of goods or receiving and processing orders.

Order form is an important document in the relationship between customers and suppliers. By using it, the customer orders a desired quantity of goods. Order form must contain all the required elements that allow suppliers to perform their duties well on time. It is about necessary quantity of goods with agreed quality, exact time and mode of delivery, payment terms etc. Order form can be submitted to the supplier (vendor) in different ways - by mail, telephone, telegraph (fax), or using electronic means.

When this document is received, its treatment begins. At first, creditworthiness of customers and inventory are being examined.

Financial service authority determines creditworthiness of customers. This is especially important if the buyer is for the first time in business relationships and when its creditworthiness is unknown. Status of regular customers is generally known.

Inventory status is a prerequisite for timely and efficient fulfillment of customer requirements. Otherwise, the manufacturing should produce the required goods as soon as possible.

When the creditworthiness of customers is satisfactory, and the required quantity of goods is available, the supplier notifies the customer that his order is accepted to pursue its execution. Otherwise, the order will not be executed.

After the previous actions are taken, the implementation of operational activities for received and accepted orders begins. Primarily, storehouse receives an order to prepare the goods for shipment. At the same time the scheduling of all activities related to the delivery of goods like packing, loading and transportation to customer warehouses performs. The delivery of the goods and the invoice to the customer is then conducted along with changes made in the business records of the supplier.

Based on the above, it can be concluded that the flow of information starts with sending orders and ends with the delivery of goods and accompanying documentation. The successful implementation of the order depends on its efficiency.

3. COMPUTER APPLICATION IN MARKETING LOGISTICS

As mentioned before, the business in modern conditions is impossible without the use of electronic computers. This also relates to the field of marketing logistics.

The process of using electronic computers emphasizes the need for the development of the program and on this basis, translating information into the language of computers. Programming is used to define the times and ways of processing information on computers.

While translating information into the programming language, the requirements in terms of content included in the information should be precisely defined. In the case of supply or purchase of products, the process begins with the following actions:

- Choosing standard program (Software) that will be used in the development of special programs for the supply and procurement;

- Determining automatic processes for the elaboration of the system of products encryption, warrants and the name of the data bank, followed by the time required for the supply (or procurement), then the required amount of products for delivery, the name of the vendor (or supplier) and so on.

Receiving and processing orders electronically (on computer) provides a number of advantages. The whole process is carried out in high-quality, effective and efficient manner, which brings a number of benefits in business, especially in the process of foreign trade orders. There is a growing number of participants in the chain, while the activities are taking place in specific circumstances, more complex than the regular trade.

Electronic computers are very suitable for monitoring inventories so their application to provide timely, accurate and complete information in all aspects of the stock economy is significant. At any moment, data on levels of stocks, recorded changes, turnover ratio, the expected procurement and delivery, etc. is available to the managers.

Information on the environment is of great relevance, especially for marketing logistics. These are primarily market information, such as supply, demand, prices and conditions of competition, possible positioning and more.

Data bank has also an important role in the enterprise information system. Its role is to provide adequate data (information) necessary to make a number of decisions in the field of marketing logistics. In order to facilitate the use of information, data is classified, coded and stored.

The transfer of information takes place in more than one direction, and there is larger number of holders involved. Information flows move in the direction of administration, disposition, management, operationalization and inversely.

Information management systems are at the highest level of decision-making in the company. At this level, strategic decisions are made based on data from a variety of decision support systems. Usually, there are several systems that cover different areas of the business in the company. Based on the outputs of these systems strategic decisions are made, and then forwarded to the lower management levels. According to the system analysis of the logistics sub-system, strategic and operational decisions made by each subsystem can be set up. For any decision, a set of information affecting it could be defined [5].

Analysis of the company work is a preparatory stage for the process of designing an information system. Within this framework one should define:

- Levels of Management,
- All subsystems of the logistics system,
- Operational decisions in the subsystems,
- Strategic decisions in the subsystems, and
- A set of necessary information.

4. CONCLUSION

In addition to all the above mentioned advantages, the importance of logistics information systems to perform a variety of logistics tasks, such as the placement of new markets, changes in packaging design, selection of modes of transportation, increase or decrease in inventories and determining the level of automation of data processing systems is also evident and significant. In order to assist in making strategic decisions in the company, the role of information logistics system to the managers is indispensable.

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EDUCATION AND INNOVATION KNOWLEDGE EMPLOYEES AS CONTRIBUTORS TO ORGANIZATION PERFORMANCE

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Abstract: *The contemporary way of doing business does not only require of the organization to adjust but also of the employees as well. The organization is adjusting to constant and more rapid changes in the environment, and the employees are adjusting to often changes required by a certain post and the working conditions. The period of use of knowledge is decreasing bit by bit, which mostly makes the schooling and university education one of the conditions to get a job and one of the conditions for life long learning. In such a way, education and capacity building of employees become one of the key and the most efficient factors of human resource development, organizational flexibility and competitive advantage. It is believed that knowledge management and organizational learning are vital for the success and that have positive influence on the organizational performance. Contemporary companies are becoming learning organizations not because their managers and employees like learning new things, but because it is the only way to survive in the modern environment. In this paper we will discuss the need of permanent education and employee development and the need to innovate knowledge and management competences. The research which was conducted in the public enterprise on the territory of the Republic of Serbia was focused on organizational learning, knowledge management and human resources and also on the methods of the organization directed towards better efficiency.*

Key words: *education, development, employees, managers, learning organization*

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1. INTRODUCTION

Knowledge is a basic business resource. The imperative of continuous improvement of productivity as a precondition of growth and development of a market oriented organization, required permanent improvement of knowledge productivity. The success of a company can be achieved only by improving the productivity of all key resources and the level of innovations.

Education is of a strategic importance for the economic and social development, that is, for developing the society based on knowledge. Various researches from the economic or social perspective, show that the higher level and quality of education in a society as a whole, influence the productivity, innovation, democracy and social cohesion. Education and creation of human resources, is one of the most important instruments in creating the strategy and policy of economic development. In modern organization, employees are required to be efficient, productive, have high quality of work and be creative for which they need to possess certain knowledge, traits, competences and motivation. In a modern organization, learning is not only and

organizational function, but also it is intersecting with all other processes, the very structure and the organization management.

Education is a live and complex system with its own dynamics, where all elements are mutually connected and which depends on the influences from the social environment. Today, life long learning and the knowledge dissemination are the main objectives of the employees. In developed countries, the human resource development system envisages the schooling of the young and the adults, also the non-formal education of the adults, and more and more attention is paid to self-education. Education is now considered to be the condition for survival and development of modern societies.

Implementing the educational function in an organization is a complex activity and task which is being done through human resource management and it represents one of its main sub functions. Today, it is a fact that managers and employees have to take care about knowledge becoming outdated. Maybe the knowledge once satisfied the organizational needs, but today they are not enough. Continuous life long learning (school, seminars, lectures, self-study) is the best means for keeping up with the technological knowledge [7]. Thus, one should intensively invest in learning and development, invest in knowledge which is now the main and only source of competitive advantage and the newly created value. Education is becoming the most important investment in one's own future and development, and the organizations are becoming a place where learning, education and development are always present.

2. LEVELS AND TYPES OF ORGANIZATIONAL NEEDS

There are four categories of educational needs. Each category, that is, each level corresponds to certain educational contents and methods. Each level of educational needs is related to certain characteristics which describe it.

The first level of educational needs is directed towards making the employees suitable for performing the ongoing tasks and eliminating the void between the expected and the current result.

The second level of educational needs is related to increasing the individual knowledge and competences and constant education for performing complex and more responsible tasks. Apart from this, the second level envisages a person to do different tasks of the same organizational level.

The third level of educational needs is connected to the individual career development and the preparation of the employees to perform complex and more responsible tasks.

The fourth level of educational needs is related to the future. It envisages educational programmes and development based on the education and competence needs in the future, as well as the ability to track and constantly adapt to changes, for new field and development of individual potentials. Each level of educational need sets different requirements in relation to educational programmes and contents. They also determine whether one will turn towards the existing educational programmes such as, for example, specialist and postgraduate studies at a certain university or other education programmes [1].

While the levels of educational needs refer to the depths and the intensity of required knowledge, the types refer to their contents, that is, knowledge and competences on which one should focus. When analyzing and systematizing the general criteria of educational needs, there are usually four types of educational needs in modern organizations, such as:

1. Basic knowledge and competences,
2. Technical and specific competences,
3. Interpersonal competences and
4. Strategic competences.

Basic knowledge and competences are necessary to almost every member of the organization having in mind that contemporary tasks require higher levels of certain knowledge and competences, which employees often actually lack. For example, there are lots of employees who lack basic mathematical knowledge, who do not know how to read and write, who lack basic knowledge of culture and manners, etc. Numerous managers, for example, feel the need to develop the fast reading technique and that is why numerous organizations developed special programmes for increasing the level of general knowledge and competences of their employees.

Technical and specific competences envisage knowledge, techniques, methods and procedures for successful performance of specific tasks. They are related to a certain job and profession. There is also the need of their development and continuous improvement. Computer literacy, for example belongs here.

Interpersonal competences envisage knowledge and competences required for successful communication, keeping good interpersonal relations, adequate and functional working conditions and success in almost all fields, especially in the managerial field.

Strategic competences are wider integration competences, such as the strategic and operative planning, shaping the organization and its structure, determining the ongoing and development policy, adjusting to changes, etc. Top and middle management usually require these competences, but also other managers and employees are starting to require this knowledge as well.

3. EDUCATION AND KNOWLEDGE INNOVATION OF EMPLOYEES

Knowledge innovation of employees makes them more independent and results in a better business success. Knowledge is a piece of information which changes something or makes somebody able to do something differently or more productively. Having in mind that new knowledge requires time before it turns into technology and finds application, it cannot be limited to acquiring it in schools. Successful businessmen in developed countries learnt this, especially in Japan and USA where they invest in the employee education the same amount of money with the support of their governments as all of the schools and universities altogether [2].

None of the investments into the modern economy can payback so quickly as investing in knowledge. EU International Commission for Education suggests that at least 6% of GDP of the member states should be allocated for educational needs. Also, it suggests that apart from that amount, the respective ministries should allocate some resources for education employees. Moreover, each development programme should involve the learning component and that all of the expenses related to educating employees should be treated as investing into productivity and business.

Contemporary companies more and more of their resources (money, time, information, energy, etc.) use in the function of education and constant education of employees. Management is beginning to understand that continuous education and development of employees is one of the most efficient ways of acquiring a competitive advantage, which guaranteed the entry into the market and competing for the trust of the consumers. It is becoming *conditio sine qua non*, not only of the further development but also of the survival of the company in general. The knowledge is a result of big and fast

changes in the external and internal environment of modern companies which consider knowledge, continuous innovation and learning as the base for economic development. This applies to both organizations and the society as a whole [1].

There is almost nobody today who questions the fact that education and trainings are one of the most important factors, if not the most important one, for the success and development. The need to transfer knowledge and the need to educate employees is becoming greater. However, it does not mean that any education and train will result in maximum results. On the contrary, such a result is achievable only if all of the preconditions for the successful realization of the educational programme and development have been secured. The basic preconditions for high quality and successful education and development are:

1. Wide basic education directed towards the key organizational competences which would differ it and make it unique (successful companies in the field of trade, for example, train their employees to have competences which would result in the increased politeness, servility, communicativity and professionalism unlike the standard training related to managing the treasury);
2. All employees should be treated as people with careers (also if the tasks are not challenging, where there is traditionally low loyalty and high fluctuation, the training should be directed towards career development and development of positive attitudes to people because all of the employees should be prepared for development and constantly be developed);
3. The basic rule is continuous learning, upgrading in education and development (successful companies urge their employees each year without exception to get educated because it is imperative for the time we live and work in; continuous learning, broadening of one's knowledge and competences and constant development have to become a goal of every individual; financial support for acquiring knowledge is an important and very often an undermined incentive which has to be an integrated part of the rewarding system);
4. Education at work is becoming more common (in numerous companies there is high quality education of employees even though there is little going on in the »classroom«; there, a »live« classroom is being created, where trainers are managers who are constantly at hand and in which everybody is instructed to act as a trainer and transfer his knowledge; the success of one's knowledge transfer is considered as a standard part of that person's evaluation);
5. Education is an important segment and assumption of strategic changes and the realization of the projected strategy (successful companies use education for introducing and securing strategic changes; before big strategic changes there is intensive education of employees, especially of managers and experts; education of employees should be an integral part of the strategic planning process and strategy implementation);
6. The need for education should be especially stressed in the time of crisis (at the time of crisis organizations should not decrease but increase the resources allocated for education and development of employees, because in such a way the precondition are being created and the chances go up for overcoming the crisis faster and smoother; at the time of technological changes and severe crises, a lot of companies reasonably support extensive and long education of employees in order to get prepared for sustaining the drop in the competitive position, conquering new markets and new challenges);

7. The educational system of employees envisages the human resource managers active involvement (for the successful education of employees the involvement of line managers into its foundations and realization is essential, without the active involvement of operational managers when founding, creating, organizing and realizing the education and development programmes, the foreseen goals are harder to be achieved);
8. Education is being used for transferring the vision and values (the management of the future will involve the strengthening of the vision and common values; the best educational programmes at all levels should be considered as a good opportunity and suitable way for stressing those values and promoting them; leading managers should also be involved in this process in order to transfer the vision which makes the organization more solid and compact in turbulent times) etc [4].

Investing in education and development of employees is common in all developed countries and it is becoming a trend and the most important investment into one's future and development, and the contemporary organizations are becoming a place of continuous education and development. Numerous organizations are establishing their education centers and workshops, series of temporary and permanent seminars, courses and other forms of education at the workplace and out of it [6].

4. NEED FOR PERMANENT EDUCATION OF MANAGERS

Successful managers need to have excellent formal education which means that they should have finished certain universities, specialist, postgraduate and even postdoctoral studies. However, this kind of education loses its application over a certain period of time since the managerial practice is being exercises in the turbulent environment; business flows are fast and unpredictable, so the knowledge managers have should be constantly innovated, their experience should be enriched by various experiences. Just a half a century ago, people thought that formal education combined with respective working experience was sufficient for somebody to become a manager. Experience and intuition were sufficient for somebody to manage the company successfully. The development of science and technology during 50s spontaneously formed the opinion that permanent education of managers is needed, especially in the production. There is less and less time for managers to adjust to new accomplishments and self-study.

The goals of the programme intended for quick development of managers are:

- Development of managers from lower levels into managers of upper levels;
- Strengthening the competitive advantage of the organization when attracting and recruiting talented managers, and
- Retaining talented managers in the organization.

The development of managers with high potentials is being implemented in three phases [3]. In the first phase, a lot of managers with high potentials are encompassed, but such a number is decreasing over time because of the fluctuation, weak results or personal decisions to decline the post at a higher level. For selecting those who are extraordinary, apart from their excellent results, highly rated academic programmes, one can use psychological tests at evaluation centers. In the second phase, those who carry on with the

good results and are ready to make sacrifice to the organization are considered successful. They have to have good communication skills, both oral and written, good interpersonal relations and to have the talent for leadership. Those who are considered by the top management to be in line with the organizational culture and have characteristic for successful presentation of the company are stepping into phase three. In this phase top management is actively involved in developing these managers and presents them to key staff and enables them to better understand the organizational culture. These managers have the potential to get the highest positions in the organization. The development of managers with high potentials is a slow process, and the time required for achieving the third phase can last from 15 to 20 years.

Managers who cannot work in a team, who are aggressive, arrogant, incapable to adapt to changes and manage conflicts, will have hard time motivating subordinates and will have slim chances to advance in the future. Those are managers with dysfunctional behavior. In relation to this, the organization should recognize them and provide adequate assistance. This assistance is usually the combination of evaluation, education and counseling [3]. The first step is to collect information about people, skills and managers' interests. For evaluating whether a manager can really change their behavior collected information and results of psychological testing are being used. If the results show that a manager can alter his behavior, then special development goals are being drafted in line with his needs. The second step involves the manager to take part in the education for behavior change. The third step is psychological counseling in order to get him truly to take up the required behavior. While conducting these activities there should be constant feedback information about the progress.

In order for somebody to be a good and successful manager, he should have different kinds of knowledge and skills from various fields. All of this can be learnt through educational system as by acquiring experience, but the question is whether there is something which cannot be learnt, something which is integral part of somebody, which determines somebody as capable of being efficient and effective manager. Learning for managers has the following implications [8]:

1. the process is powerful and it can lead to positive results (increase in competences, understanding, self-respect, moral) but also to negative results (learning about how to dodge work or express negative behavior),
2. individuals who like learning are becoming more flexible in time of constant changes and that is why they are more likely to accept organizational changes,
3. awareness about the fact that the culture of learning can influence the efficiency of the organization is being increased.

Analysis of Research Findings - Importance of Education and Knowledge Innovation of Employees for Increasing the Organizational Performances

The research conducted in a public enterprise aims at portraying organizational, social, managerial factors which can influence organizational learning of employees, and also point out the need for education and knowledge innovation of employees and managers in order to increase the organizational performances. As an instrument the questionnaire was used. The success rate of the questionnaire is 85.71% because 66 employees out of 77 employees in that public enterprise filled it in. Data processing was done in SPSS 18.0.

The results show that there are more men 69.7%, while there are 30.3% of women which can be assigned to the type of work which required male workforce. The second question about demographic structure shows that most of the employees are in their mature years who can contribute to the organization becoming successful having in mind their

extensive practice and work. Most of the employees work in production (74.2%) while the other 25.8% work in the finances/administration. When the level of education is concerned, most of the employees have secondary education which amounts up to 54.5%. The lack of university education employees can significantly slow down the growth and development of the organization because there is nobody to guide them and organize them in teams in the most efficient way.

The first quest from this group of question is related to the existence of the method for transferring organizational knowledge to individuals in order to achieve more efficient organization. Most of the questionees agree with this fact (34.8%), which makes more than one third of the questionees. This confirms the fact that each and every employee, individual, is being acknowledged in the organization. The smallest percentage is of those who completely disagree 6.1%, and those who completely agree amount up to 13.6%. Evaluating individuals within groups can inspire additional confidence to an employee when conducting certain tasks which will increase the efficiency of the organization.

Organization has methods for transferring organizational knowledge to individuals

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid I completely disagree	4	6.1	6.1	6.1
I partially agree	17	25.8	25.8	31.8
I agree	23	34.8	34.8	66.7
I pretty much agree	13	19.7	19.7	86.4
I completely agree	9	13.6	13.6	100.0
Total	66	100.0	100.0	

The next question is whether an individual is considered important as the important link in the organization, and whether one can learn something from every individual and apply it in the organization. Here, also most of the questionees agree with this sentence (31.8%) which makes almost one third of all of the questionees, while 9.1% do not agree. High percentage of those who agree confirms the fact that organizational knowledge is being transferred to individuals and that knowledge of individuals is being transferred to the organization.

There are methods for incorporation knowledge of individuals in the organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid I completely disagree	6	9.1	9.1	9.1
I partially agree	11	16.7	16.7	25.8
I agree	21	31.8	31.8	57.6
I pretty much agree	19	28.8	28.8	86.4
I completely agree	9	13.6	13.6	100.0
Total	66	100.0	100.0	

The next question is related to the business partners and application of knowledge acquired from them. The fewest of the questionees disagree (6.1%), and 34.8% of questionees agree which makes more than one third of the total number of questionees.

There are methods for incorporating knowledge of business partners in the organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	4	6.1	6.1	6.1
	I partially agree	15	22.7	22.7	28.8
	I agree	23	34.8	34.8	63.6
	I pretty much agree	15	22.7	22.7	86.4
	I completely agree	9	13.6	13.6	100.0
	Total	66	100.0	100.0	

The question related to implementation of acquired knowledge in the organization in order to improve its efficiency and competitiveness had the fewest of questioned 6.1% who completely disagreed, while most of them agreed (31.8%). One can conclude that acquired knowledge is being applied in this organization in order to improve its efficiency.

There are certain procedures used in order to integrate different sources and types of knowledge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	4	6.1	6.1	6.1
	I partially agree	17	25.8	25.8	31.8
	I agree	21	31.8	31.8	63.6
	I pretty much agree	14	21.2	21.2	84.8
	I completely agree	10	15.2	15.2	100.0
	Total	66	100.0	100.0	

The next question addresses the replacement of old technologies which are very often one of the reasons for bottleneck situations in production. Regular replacement of technologies decrease bottleneck situations, and, thus increase the quality of the product and services, which increase the efficiency of the organization. One can conclude that this organization does not replace the technology very often in order to increase the quality of the products, in our case the quality or running water.

There is regular replacement of outdated technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	17	25.8	25.8	25.8
	I partially agree	18	27.3	27.3	53.0
	I agree	16	24.2	24.2	77.3
	I pretty much agree	8	12.1	12.1	89.4
	I completely agree	7	10.6	10.6	100.0
	Total	66	100.0	100.0	

The next question involves innovation which is very important for the success of an organization. Most of the questionees agree that there is innovation (31.8%), and there are 13.6% of those who completely disagree. One of the forms of

organizational learning is through the application of innovation and one can conclude clearly that innovation is present in this organization to the acceptable extent.

Innovation is present in your company (organization)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	9	13.6	13.6	13.6
	I partially agree	13	19.7	19.7	33.3
	I agree	21	31.8	31.8	65.2
	I pretty much agree	10	15.2	15.2	80.3
	I completely agree	13	19.7	19.7	100.0
	Total	66	100.0	100.0	

The first question in this second set of questions is related to the application of knowledge acquired from the errors. There are 16.7% who completely disagree, but most of the questionees agree with this sentence 34.8% and there 19.7% of those who completely agree. When errors occur it is very important that something can be learn from them and applied in practice. In this organization there are methods for applying the knowledge learnt from errors and experience.

One can apply the knowledge learnt from errors and experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	11	16.7	16.7	16.7
	I partially agree	10	15.2	15.2	31.8
	I agree	23	34.8	34.8	66.7
	I pretty much agree	9	13.6	13.6	80.3
	I completely agree	13	19.7	19.7	100.0
	Total	66	100.0	100.0	

The next question addresses the application of knowledge related to new products and services. This question is very important because it shows upgrading of the organization and whether it is contemporary. Most of the questionees (33.3%), as in the previous case, agree with this, while 10.6% completely disagree. One can conclude that this organization applies the newly acquired knowledge related to new products/services.

One can apply knowledge related to new products/services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	7	10.6	10.6	10.6
	I partially agree	13	19.7	19.7	30.3
	I agree	22	33.3	33.3	63.6
	I pretty much agree	15	22.7	22.7	86.4
	I completely agree	9	13.6	13.6	100.0
	Total	66	100.0	100.0	

The next question is related to applying knowledge in order to increase the efficiency of the company. Most of the questionees completely agree 25.8%, which makes 17 questionees of the total number, and the smallest percent 12.1%, or 8 questionees, completely disagree. One can conclude that efficiency in this organization is sufficient and due to knowledge application.

One can apply knowledge in order to improve the efficiency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	8	12.1	12.1	12.1
	I partially agree	9	13.6	13.6	25.8
	I agree	16	24.2	24.2	50.0
	I pretty much agree	16	24.2	24.2	74.2
	I completely agree	17	25.8	25.8	100.0
	Total	66	100.0	100.0	

To the question related to sustaining the competitive advantage by applying knowledge most of the questionees agree that they use knowledge in order to improve the efficiency and competitive advantage of the organization, while there are 9.1 % of those who completely disagree.

One is able to locate and apply knowledge in order to sustain the competitive advantage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	6	9.1	9.1	9.1
	I partially agree	13	19.7	19.7	28.8
	I agree	24	36.4	36.4	65.2
	I pretty much agree	15	22.7	22.7	87.9
	I completely agree	8	12.1	12.1	100.0
	Total	66	100.0	100.0	

To the question related to education of employees who need it, most of the questionees agree with this (30.3%) and 13.6% completely disagree. One can conclude that there is additional training for employees who need it in order to improve the efficiency of the organization.

Employees who need training are being educated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	9	13.6	13.6	13.6
	I partially agree	15	22.7	22.7	36.4
	I agree	20	30.3	30.3	66.7
	I pretty much agree	10	15.2	15.2	81.8
	I completely agree	12	18.2	18.2	100.0
	Total	66	100.0	100.0	

The questionees had to answer the question related to the use of knowledge in new problems. Most of the questionees completely agree with this (37.9%), while it is a tie

between those who disagree and who partially agree (13.6%). One can conclude that knowledge is used to a great extent for solving new problems.

Knowledge is used for solving new problems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	9	13.6	13.6	13.6
	I partially agree	9	13.6	13.6	27.3
	I agree	14	21.2	21.2	48.5
	I pretty much agree	9	13.6	13.6	62.1
	I completely agree	25	37.9	37.9	100.0
	Total	66	100.0	100.0	

To the question whether management considers learning as the key factor for the organization being successful 20 questionees agreed (30.3%), while only three questionees completely disagreed (4.5%). Growth and development of the organization can only be achieved through the growth and development of individuals, that is, employees and most of the questionees agree with this and that this is the case in their organization.

Learning of employees is considered a key factor for the company being successful

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I completely disagree	3	4.5	4.5	4.5
	I partially agree	19	28.8	28.8	33.3
	I agree	20	30.3	30.3	63.6
	I pretty much agree	11	16.7	16.7	80.3
	I completely agree	13	19.7	19.7	100.0
	Total	66	100.0	100.0	

5. CONCLUSION

The accelerated economic development required new knowledge which has to be in line with innovation from the environment, because that is one of the important conditions for survival on today's instable global market. The competitive advantage of every business system in such an environment depends on its flexibility, creativity, innovation, inventivity and focus on quality of the employees. An organization which aims at becoming the learning organization and considers its employees as "knowledge employees", supports their innovative and creative behavior". It is very important that all employees know that management is interested in education employees and that it recognizes the link between the personal efficiency and the organizational efficiency.

The theory of organizations and management stresses that education and development of employees is becoming the most important competitive advantage of the organization and the continuous learning and broadening of knowledge and competences is the most important obligation of employees. The concept of continuous learning and development is an important potential and the key of the future success of the organization. The adoption and development of the concept of continuous learning is the

source of the competitive advantage of the company, investing into the quality and the support to realizing a company's mission and vision. One of the most important determinants of a company's success is the development of knowledge and competences of employees, and especially the permanent innovation of managers' knowledge.

Organizations which will really progress in the future will be those which find out how to actuate people to be dedicated and able to learn at all levels in an organization. Changes in the environment (new requests from buyers, new competition, new legal opportunities or limitations) require the organizational management to constantly handle those changes and knowledge in order to transform them into business opportunities.

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USE OF FINANCIAL INDICATORS IN THE CREDITWORTHINESS

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Abstract: *The largest part of the banking business is related to lending activities, and therefore they carry the highest risk. To reduce the risk when lending banks have to assess the credit risk to which they are being exposed. Credit risk assessment of companies is based on an analysis of their financial statements. By analyzing the financial statements, bank receive important information about company's financial position, cash flows, changes in equity and results of yield of the company in a defined period. On the basis of relevant indicators of financial analysis banks estimate future financial value of a company which will influence its ability to repay a loan. The aim of the study is to show what kind of financial analysis and financial indicators banks use in assessing the corporate creditworthiness.*

Key words: *financial report analysis, creditworthiness, ratio analysis*

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1. INTRODUCTION

To protect themselves from risky investments banks perform credit analysis of the loan applicant. Key part of credit analysis is financial analysis which is based on financial indicators. If financial analysis gives satisfactory indicators, banks perform deeper credit analysis which beside financial analysis also includes industry analysis in which the organization conducts the business, their position within the industry, quality of the management and elements of transaction structure such are contracts.

Good analysis of credit applicant's financial aspects gives valuable information about applicant's creditworthiness. Analysis provides answer to question how the company operated in previous period and it gives assumptions about future operations, i.e. whether the company will be able to repay credit obligations to bank. Banks perform financial analysis based on financial reports which company provides when applying for a loan. Financial reports which company gives are:

- a) balance sheet – shows financial position of the company at the end of observed period,
- b) income statement – observes changes in financial position which took place in the company,
- c) report about changes in equity,
- d) cash flow report, which offers evaluation of various sources and usage of cash in observed period,
- e) accounting policies and explanatory notes – contain information which are relevant for user's needs about positions in balance sheets, as well as public

display of risks and uncertainties that influence company, or information about geographical and industrial segments, no. of employees and other relevant data.

2. FINANCIAL REPORT ANALYSIS - HORIZONTAL AND VERTICAL ANALYSIS OF FINANCIAL REPORTS

Financial analysis begins with horizontal and vertical analysis. The goal of horizontal and vertical analysis is to better comprehend financial reports and their interrelations.

Horizontal analysis represents comparison of balance positions in balance sheets of current and previous year, as well as positions in income statement of current and previous year [3]. It is in fact comparative analysis of financial reports. Detailed analysis is needed for identified changes in the form of deviation, reduction or increase in value of position in financial report.

Vertical analysis of financial reports shows in percentages stakes which various groups, subgroups and positions have in total assets. For vertical analysis of balance sheet, total assets and total liabilities are used as a base figure. For vertical analysis of income statement, we use as a base sales figure which come from sale of products, goods and services on domestic and foreign market. Percentage comparison of items from financial report between two or more account periods provides certain conclusions about structure and changes in structure of assets and liabilities. These changes are next analyzed in detail, with the goal to understand observed changes.

3. RATIO ANALYSIS OF FINANCIAL REPORTS

Ratio analysis of financial reports represents every number which shows relation between two values in annual accounts [5]. Bank, i.e. credit officer based on ratios performs analysis of credit applicant's business. Indications derived from ratio analysis lead credit officer to ask credit applicant certain questions and by that way complete financial analysis. Financial report analysis performed by credit officers put emphasis on ability to return the loan and risks related to credit applicant's business.

In order to rate credit ability and business risk of credit applicant, credit officer must consider sufficient number of ratios and determine their interdependence.

Ratio analysis is useful for:

- observing trends in financial activities of business entity;
- comparison of financial characteristics of specific business entity with other business entities from the same business area or from the same branch;
- determining interdependence between factors which influence financial success of business entity [2].

Based on information gathered from certain indicators of ratio analysis we can distinguish:

1. liquidity indicators,
2. debt indicators
3. activity indicators,
4. profitability indicators, and
5. indicators of cost effectiveness.

3.1 Liquidity indicators

In the process of ratio analysis of financial reports we are evaluating liquidity of credit applicant, i.e. its ability to repay - within defined deadlines and under defined conditions - obligations toward creditors. Liquidity indicators compare current liabilities with short-term or current sources available for settling short term liabilities.

Liquidity ratios are:

1. current ratio,
2. quick ratio,
3. cash ratio,
4. financial stability ratio.

Current ratio shows company's ability to service current liabilities with available current assets [4]. It derives from observing relation between short-term assets and short-term liabilities. Value of general liquidity ratio is compared with the same indicator in previous year, and with ratios of the companies from the same branch. If the current ratio is below 1.5, there is a possibility that the company will not have enough assets to meet short term liabilities. If the value of current ratio indicator is significantly higher than industrial average, this shows that assets are not used efficiently.

Quick ratio is expressed by observing relation between current assets minus inventory, and current liabilities. It should be min 1, which means that current liabilities should not be higher than current assets from which we excluded inventory.

Cash ratio shows the coverage of current liabilities with cash. It is believed that this ratio shouldn't be less than 0.1 i.e. 10%.

Financial stability ratio is determined by putting in relation non-current assets with equity plus long-term liabilities. If higher than 1, it points to deficit of working capital.

3.2 Debt indicators

Debt indicators point to ways in which a company finances its assets, i.e. how much of business is financed from own sources and how much from the loan. These indicators represent the level of risk for investing in a company. Companies which are highly geared lose their financial flexibility and may have problems finding new investors, so they face the risk of bankruptcy. However, if the debt indicator is under control and loan is used properly, it can result in increase of return on investment.

Most widely used debt indicators are:

1. Debt-to-assets ratio,
2. Equity - to- assets ratio,
3. Debt-to-equity ratio,
4. Interest coverage ratio,
5. Leverage factor.

Debt-to-assets ratio shows the extent to which a company uses debt as a form of financing. The higher the ratio of debt to assets, the greater is financial risk, and vice versa - the lower the ratio of debt to assets means lower financial risk. The rule is that

value of this ratio should be 0.5 or less. It can be calculated by dividing total liabilities with total assets:

$$\text{Debt to assets ratio} = \text{Total liabilities} / \text{Total assets}$$

Equity-to-assets ratio shows how much of company's equity is involved into company's business. It is better if the value is over 0.5, which implicates that company is financed by its own equity more than 50%. It is calculated in the following way:

$$\text{Equity-to-assets ratio} = \text{Equity} / \text{Total assets}$$

Debt-to-equity ratio shows the proportion of debts or total liabilities of a company to equity. This indicator grows faster with growth of liabilities in equity structure. Upper limit for this proportion is usually 2:1. High value of this indicator points to possible difficulties in returning borrowed funds and interest payments. It is calculated in the following way:

$$\text{Debt-to-equity ratio} = \text{Total liabilities} / \text{Total equity}$$

Interest coverage ratio shows how much business earnings can drop without jeopardizing payments of interest. It gives information how much are interest expenses covered with company's earnings before tax.

It is calculated in the following way:

$$\text{Interest coverage ratio} = \text{EBIT} / \text{Annual interest expense}$$

Higher result is desirable, because it means that the risk of not paying interest is lower. This indicator is good for orientation when deciding about asking financial organizations for a loan, i.e. it shows whether the credit applicant is in a position to pay interest cost for a credit it would potentially ask.

Leverage factor shows how many years it would take for a credit applicant to pay its liabilities under existing business terms and profits. It is calculated in the following way:

$$\text{Leverage ratio/factor} = \text{total liabilities} / (\text{net profit} + \text{depreciation})$$

Observed from the aspect of company's business security, it is implied that smaller leverage factor means higher security and vice versa. Controlling measure for this factor is 5 years, which means that if a company is able to repay all its liabilities within 5 years it is solvent and not overdue.

3.3 Activity indicators

Activity indicators or turnover ratio are measure of success in managing company's assets. They show circulation speed of assets in business process. General formula for calculating turnover ratio is:

$$\text{Turnover ratio} = \text{Sales} / \text{average balance}$$

When calculating average balance usually is taken into account sum of bookkeeping balance at the beginning and at the end of year, and then divided with 2 [(previous year + current year)/2].

From the aspect of credit analysis, the following ratios are analyzed:

1. Current asset turnover ratio and total asset turnover ratio,
2. Inventory turnover ratio,
3. Accounts receivable turnover,
4. Creditors turnover ratio.

Current asset turnover ratio shows how many times current assets of the company are turned over in a year. This ratio measures efficiency with which a company uses current assets to make a profit within a business cycle. It is calculated in the following way:

$$\text{Current assets turnover} = \text{Sales} / \text{Average current assets}$$

If turnover ratio is known it is possible to calculate average collection period, i.e. turnover duration. Average collection period is calculated with the following formula:

$$\text{Average collection period} = 365 / \text{Turnover ratio}$$

For the sake of safety and success it is better when the turnover ratio is higher, i.e. that collection period is shorter.

Total assets turnover ratio shows how many times total assets of the company are turned over within a year, i.e. how successful is a company in employing its assets to make profit. It is calculated in the following way:

$$\text{Total assets turnover} = \text{Sales} / \text{Average total assets}$$

The higher the ratio, the faster turnover (i.e. shorter collection period).

Inventory turnover ratio shows efficiency in using and managing total supplies, which has the influence on increase in company's profit. It is calculated in the following way:

$$\text{Inventory turnover ratio} = \text{Sales} / \text{Average inventory}$$

Low ratio means that the company is using its assets in non-productive way and points to inventory of bad quality (outdated, spoiled). It is also possible that company has certain amount of old inventory which are not being used, while others have good turnover. Too high inventory turnover ratio points to fact that the company probably often runs out of inventory and therefore loses its customers.

With the help of inventory turnover ratio it is possible to calculate no. of days inventory in the following way:

$$\text{No. of days inventory} = 365 / \text{Inventory turnover ratio}$$

Account receivable turnover shows how many monetary units of sale can be achieved with 1 KM invested in account receivables. It is calculated in the following way:

$$\text{Account receivable turnover ratio} = \text{Sales} / \text{average accounts receivable}$$

Average collection of account receivables can be calculated in the following way:

$$\text{Collection of account receivables} = 365 \text{ days} / \text{Account receivable turnover ratio}$$

Increase in average collection of account receivables (drop of account receivables ratio) may mean that company has a problem with collecting receivables. Duration of collecting account receivables should be compared to agreed currency. For example, if the company has granted buyers grace period of 30 days, and average collection of account receivables is 45 days, it means that collection from buyers is being late. If the currency approved to buyers is 60 days it would mean that the collection is ahead of deadline.

Account payable turnover ratio shows in how many days on average a company is paying its suppliers, i.e. how many days are between moment of purchase and moment of paying the suppliers. It is calculated in the following way:

$$\text{Account payable turnover ratio} = \text{Value of total purchases of goods and materials in a year} / \text{average accounts payable}$$

$$\text{Average days payable outstanding} = 365 / \text{Account payable turnover ratio}$$

3.4 Profitability indicators

Profitability indicators connect profit with sales revenue and investments, and by observing them in total they show company's business success.

Profitability indicators are divided to:

- 1) Indicators which show profitability compared to sales. Usually are used:
 - Gross profit margin,
 - Net profit margin.
- 2) Indicators which show profitability compared to investments. These are:
 - Return on assets,
 - Return on equity.

Gross profit margin shows how much gross profit is generated per unit of business revenue. na jednu jedinicu poslovnih prihoda. Every increase in value of this indicator is consider to be favorable, and decrease in value points to difficulties in company's business and can be one of the indicators of business crisis. Gross profit margin in calculated in the following way:

$$\text{Gross profit margin} = \text{Gross profit} / \text{Revenue}$$

Net profit margin is the most precise indicator of final results of finished transactions and shows what percentage of revenue is left as profit which is at disposal to a company. pokazuje koliki postotak prihoda ostaje u vidu dobiti kojom se može slobodno raspolagati. It is calculated in the following way:

$$\text{Net profit margin} = \text{Net profit} / \text{Revenue}$$

Return on assets - ROA is company's ability to make profit by using available assets, that is, it shows the intensiveness of company's assets. Return on assets can be calculated in the following way:

$$\text{Return on assets} = \text{Net profit} / \text{Total assets}$$

Capital-intensive industries like automobile industry, demand expensive equipment and because of that have high level of assets intensiveness. On the opposite side, marketing agencies have low level of assets intensiveness because their demand for assets is minimal. So, value of return on assets can vary depending of the business in which the company operates. General rule is that all values below 5% mean high level of assets intensiveness, while values above 20% mean low assets intensiveness [6].

Return on equity - ROE or profitability of shareholder's equity shows how many monetary units of profit company makes per unit of shareholder's equity. It is calculated in the following way:

$$\text{Return on equity} = \text{Net income} / \text{Shareholder's equity}$$

When profitability of own equity is compared to profitability of assets with the interest which reflects the cost of loan capital, it is possible to make conclusion about profitability of using own capital compared to loaned capital. If profitability rates of own capital are very high, even higher than rates of assets profitability, company would be better of using loaned capital, and vice versa [1].

3.5 Effectiveness indicators

Effectiveness indicators measure relation between profit and cost, and show how much profit is made per cost unit. These indicators should be above 1, because the higher they are, the more profit is earned per cost unit.

Effectiveness indicators are:

- 1) Revenue to cost ratio, which can be calculated in the following way:
 $\text{Ekonomičnost ukupnog poslovanja} = \text{Total revenue} / \text{Total costs}$
- 2) Cost of revenue to sales ratio, which can be calculated in the following way:
 $\text{Ekonomičnost prodaje} = \text{Sales revenue} / \text{Cost of sales}$

4. CONCLUSION

Business success of every bank is shown in its ability to manage risks to which it's exposed. Since credit transactions carry the highest risk, they should be adequately evaluated. To lower the level of risk to which they are being exposed when approving the credit to a business entity, banks perform financial analysis of credit applicant's business. Based on financial analysis banks, i.e. credit officers evaluate financial strength and

business performance of the client in total, and from that they evaluate capability of credit applicant to repay approved credit.

Creditworthiness evaluation of credit applicant's business should be performed based on financial report analysis: balance sheet and income statement, changes in equity report and cash flow reports. That is why banks should use financial reports which cover period of 2-3 years when evaluating credit ability. Based on gathered financial reports, banks start performing horizontal and vertical analysis of financial reports. The goal of horizontal and vertical analysis is to observe the trends in movement of balance positions. After horizontal and vertical analysis, next is ratio analysis of financial reports.

Ratio analysis of financial reports combines various positions of balance sheet assets with various positions of liabilities and positions of income statement. Based on resulting ratio numbers it is possible to view liquidity, debt, activity, cost effectiveness, financial structure of credit applicant's business. Based on mentioned ratio numbers it is possible to evaluate creditworthiness of the company, which represents its ability to repay the credit. Creditworthiness of the applicant means that bank will collect receivables on time or eventually from bankruptcy estate.

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